

Count aloud: Count by tens from 10 to 100. Count by hundreds from 100 to 1000.

Mental math:

- $3+3$
- $30+30$
- $300+300$
- $40+50$
- $200+600$
- $50\text{¢} + 50\text{¢}$
- $20\text{¢}+20\text{¢}+20\text{¢}$

Finding Patterns

You learn counting early on in life. When we count by 1's we say 1,2,3,4,5...

When we count by 2's we say, 2,4,6,8,10, ...

An ordered list of numbers forms a sequence. We can study a sequence to discover it's counting pattern or rule.

What are the next three terms in this counting sequence:

3,6,9,12,____,____,____

as you can see they are counting by 3's. The next three numbers would be 15,18,21

Your turn:

6,8,10,____,____,____

7,14,21,____,____,____

45,40,35,____,____,____

There are ten digits in our number system. They are 0,1,2,3,4,5,6,7,8,9. The number 254 has three digits. The last digit is 4.

Your turn:

How many digits are in each number:

175,000 _____

322,342,222 _____

221 _____

Count aloud: count up and down by tens between 10 and 100. Count up and down by hundreds between 100 and 1000.

Mental math:

- $6+6$
- $60+60$
- $600+600$
- $60 \text{ seconds}+70 \text{ seconds}$
- $70 \text{ seconds}+80 \text{ seconds}$
- $300+300+300$
- $90+90$
- $50\text{¢}+50\text{¢}+50\text{¢}$

Even and odd numbers. When numbers have a pair we say they are even.

To tell whether a large number is even, the last digit has to be 0,2,4,6,8 (we say 0 because 10 ends in 0) If it ends in any other number, it is odd.

Your turn:

Circle the numbers that are even

3577 7644 87 66

1234 20,001 391,048

Half of an even number is a whole number. We can take 4 apples and split them in half and give each person 2. When we have an odd number and have to split it in half then we will end up with some halves.

counting numbers	1	2	3	4	5	6	7	8	9	10
half of number	$\frac{1}{2}$	1	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5

What is half of 5? _____

What is half of 8? _____

count aloud: count up and down by tens between 10 and 200. Count up and down by hundreds between 100 and 2000.

mental math:

- $20+300$
- $320+20$
- $340+200$
- $250+40$
- $250+400$
- 120 seconds +60 seconds
- $600+120$
- $30¢+70¢$

Each digit in a number has a place value. The value of a digit depends on its place, or position in the number. We identify the value of the digits in a number when we want to write the number in expanded form. Expanded form is a way of writing a number that shows the value of a digit.

In the number 542, write it in expanded form. It is made up of $500+40+2$

Your turn:

Use digits to write the number five hundreds plus seven tens plus eight ones.

In 560, which digit shows the number of tens

The number 80 means "eight tens". The number 800 means eight what?

How much money is half of \$10

What number equals five tens

Write the expanded notation of 678

Comparing numbers

When we compare numbers we use the < less than and the > greater than symbol. We also can use the = equal symbol. When writing the large opening points towards the bigger number and the smaller (point) aims toward the smaller number.

Compare with < > or =

$51 \underline{\hspace{1cm}} 21$

$8 \underline{\hspace{1cm}} 8$

$3 \underline{\hspace{1cm}} 9$

Write out four is less than ten

Write out fifteen is greater than twelve

Which digit is 987 is in the ones place

Circle the odd numbers

355,322

35,121

6,784,321

Write the following numbers in order from least to greatest:

435 354 523

20,24,28, _____, _____, _____

106,104,102, _____, _____, _____

What number equals 9 tens

What number equals 11 tens

What number is half of 9

count aloud: count up and down by tens between 0 and 200. count up and down by hundreds between 0 and 2000

count aloud:

- $200+60+300$
- $20+600+30$
- $250\text{ cm}+250\text{ cm}$
- $640+250$
- $260+260$

Use digits to write two hundred forty-five

Use digits to write five hundred three dollars and fifty cents

Use digits to write four hundred twenty

Use words to name \$623.15

Arrange these numbers in order from least to greatest

462 624 246 426

Circle the even numbers

353,234 321,242 653,111

0,9,18,_____,_____,_____

25,30,35,_____,_____,_____

count aloud: count up and down by 20s between 0 and 200. Count up and down by 200s between 0 and 2000.

mental math:

- $400+50+300+40$
- $320+300$
- $320+320$
- $60+200+20+400$
- $\$40+\250

Numbers that are added are called “addends” The answer to an addition problem is the sum. We can add numbers in any order.

Find the sum of 7,4,3, and 6?

To solve this, look for the ones that add up to 10. 7 and $3=10$ and 6 and $4=10$.

Your answer 20.

Your turn—do as above:

$$8+6+2______ \quad 4+7+3+6______ \quad 8+7+2+3______$$

$$7+3+4______ \quad 5+5+3______ \quad 6+2+8+4______$$

When adding larger numbers, remember to line them up in a column for easier addition. Start on the right and move to the left. If you have to carry over, do so.

$$\begin{array}{r} 436 \\ +123 \\ \hline \end{array}$$

$$\begin{array}{r} 650 \\ + 79 \\ \hline \end{array}$$

$$\begin{array}{r} 752 \\ +183 \\ \hline \end{array}$$

Compare $5+5+5______$ $4+5+6$ ($<>=$)

count aloud: count up and down by 20s between 0 and 200. Count up and down by 200s between 0 and 2000.

mental math:

- $\$25 + \25
- $\$300 + \400
- $30 + 450$
- $\$750 + \250
- $\$50 + \350
- 360 seconds + 360 seconds

Place value

hundred thousands	ten thousands	thousands	hundreds	tens	ones
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You place a comma counting over every 3 places to separate the numbers. This also helps to make it easier to read. When reading a large number—within the commas read it as a 3 digit number. For example 321,233 Read the first set of numbers as three hundred twenty-one. Then determine which place value you are in, this one is thousands. So three hundred twenty-one thousands, two hundred thirty three. We don't say the word "and". Just say in between the commas and then which value they are worth.

Your turn:

Use words to name 53270

Use digits to write "one hundred fifty thousand, two hundred thirty four

Use digits to write sixty-three thousand, one hundred seventeen

Use digits to write two hundred six thousand, seven hundred one

$$\begin{array}{r} 463 \\ +321 \\ \hline \end{array}$$

$$\begin{array}{r} 311 \\ +87 \\ \hline \end{array}$$

$$\begin{array}{r} 876 \\ +239 \\ \hline \end{array}$$

Addition and subtraction are inverse operations. This means that one operation undoes the other. If we add 3 and 5, we get 8. If we subtract 3 from 8 we get 5. For every addition fact, we can form a subtraction fact. For example:

$$2+3=5 \quad 5-3=2 \quad 3+2=5 \quad 5-2=3$$

These are called fact family

Write two addition facts and two subtraction facts for each fact family:

7,8,15

5,7,12

Which digit is in the thousands place in 4654

What is sixty-four plus two hundred six

Use word to name the number four hundred plus four tens plus four ones

Use digits to write eight hundred two

When seven is subtracted from fifteen what is the difference

Add to find the sum:

$$36+403+97$$

$$572+386+38$$

Half of the 18 students were girls. How many girls were there

count aloud: count up and down by 50s between 0 and 500. Count up and down by 500s between 0 and 5000.

mental math:

- $\$250 + \250
- $\$75 + \125
- 60 degrees + 20 degrees
- $600 - 200$

6000-2000

- $860 + 70$

Subtraction. We line up the numbers in column form and we start on the right and move to the left. Remember you cannot take away if the number on top is smaller. You will have to borrow from the neighbor. We borrow (10) because between each place value is times ten.

$$\begin{array}{r} 346 \\ -264 \\ \hline \end{array}$$

$$\begin{array}{r} 319 \\ -73 \\ \hline \end{array}$$

$$\begin{array}{r} 600 \\ -123 \\ \hline \end{array}$$

What digit in 596, shows the number of tens

One hundred is equal to how many tens

Write five hundred forty is greater than five hundred fourteen

remember to rewrite these in column form to make them easier:

$$\$346 - \$178 =$$

$$415 - 378 =$$

$$429 + 85 + 671 =$$

count aloud: count up and down by 25s between 0 and 200

mental math:

- \$5000+\$4500
- 6000-4000
- 500yards-400yards
- 125 feet+125 feet
- 6+6-2+5
- 640+260

In the number sentence, there is a missing addend. The letter w is used to represent the missing addend

$$8+w=15$$

A number sentence with an equal sign is often called an equation. Since eight plus seven equals 15, we know that the missing addend is 7. Notice we did that by subtracting.

Your turn: Find the missing addend

$$24 + m = 37 \quad \text{subtract to find the missing addend}$$

Find the missing addend

$$15+20+6+w=55$$

$$35+m=67 \quad m=\underline{\hspace{2cm}}$$

$$n+27=40 \quad n=\underline{\hspace{2cm}}$$

Use the digits 4,5,6 and write a three digit odd number greater than 500

What is five hundred ten minus fifty one

REVIEW

What is five hundred minus forty two

What digit in 325,875 shows the number of hundreds

We can count to 30 by 3s or by 10s. we do not count to 30 when counting by

a. 2s b.4s c.5s d.6s

Think of one odd number and one even number and add them. Is the sum odd or even

Compare $100-10$ _____ $100-20$

rewrite the following in column form:

$$\$363-\$179=$$

$$\$570-\$91=$$

$$367+56+654=$$

$$32+248+165$$

$$12+4=80 \quad r=\underline{\hspace{2cm}}$$

REVIEW

3,6,9,12,____,____,____

6,12,18,24,____,____,____

How many \$100 bills are needed to make \$1000

Is half of 37,295 a whole number? Why or why not

Jadyn, Brooklyn, and Autumn collect trading cards. Together they have a total of 63 cards. If Jadyn has 27 cards and Brooklyn has 15 cards, how many cards does Autumn have?

Stephen is 5 years old

Jentzen is 11 years old

Evan is 6 years older than Stephen

How old is Evan?

count aloud: count up and down by 25s between 0 and 200. Count up and down by 250s between 0 and 2000.

mental math:

- $\$6000 + \3200
- $\$5000 + \3000
- $375 + 125$
- 350 seconds + 300 seconds
- $540 - 140$
- $7 + 6 + 3 + 4$

Story problems

The troop hiked 8 miles in the morning and 9 miles in the afternoon. Altogether, how many miles did the troop hike? When you see the word altogether, in all, how many, the sum of...those are all clues to add +

$8 \text{ miles} + 9 \text{ miles} = 17 \text{ miles}$

After Mike paid Sarah \$120 for rent, Sarah had \$645. How much money did Sarah have before Mike paid Sarah for rent?

We know that she had 645 dollars, if we take away or subtract the 120 dollars we will find out what she had before. Take away, how many more, difference those are all subtraction clues.

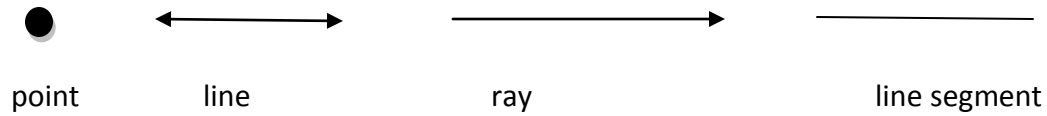
Your turn:


Tammy wants to buy a camera. She has \$24. The camera costs \$41. How much more does she need?

The Maryons traveled 397 miles one day and 406 miles the next day. Altogether how many miles did they travel?

Marks team scored 63 points and won the game. If the team scored 29 points in the second half, how many points did the team score in the first half?

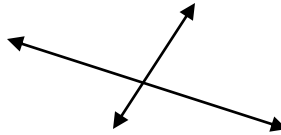
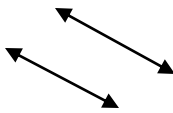
In mathematics we study numbers. We also study shapes such as circles, squares, and triangles. The study of shapes is called geometry. The simplest figures in geometry are the point and the line. A line does not end. Part of a line is called a line segment or segment. A line segment has two endpoints. Sometimes dots are drawn at each end of a line segment to represent the dots. The last visible point on each end of the line segment is considered to be an endpoint. A ray begins at a point and continues without end.



Lines that go  are called horizontal lines. Think the horizon.

Lines that go  are called vertical

Two lines that will never touch are called parallel lines. Two lines that will intersect at one point are called intersecting lines.



Practice:

$862-79=$

$508-39=$

$654-232=$

$765+45+53=$

$765+641+102=$

$80+98+432=$

Draw me a line segment

Draw me a line

Draw me a ray

Draw me two parallel lines

Draw me two intersecting lines

Draw me a vertical line

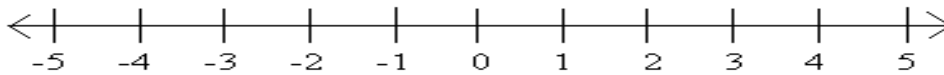
Draw me a horizontal line

What comes next 5,10,15,_____,_____,_____

$38+427=_____$

$\$580-\$94=_____$

Write two addition and two subtraction facts for the fact family 4,6,10



By carefully marking numbers on a line, we can make a number line. A number line shows numbers at a certain distance from zero. Numbers to the left of zero are negative numbers. We read the minus sign by saying “negative three”. The small marks above each number are called tick marks.

The numbers shown on the number line are called integers. Integers include all the counting numbers, the negatives of all the counting numbers, and the number zero.

This sequence counts down by ones. What are the next six numbers in the sequence 5,4,3,.....the answer is: 2,1,0,-1,-2,-3

Your turn:

Draw a number line marked with the whole numbers from 0 to 5.

How many segments are there on a number line from 2 to 7?

Write the comparison using digits

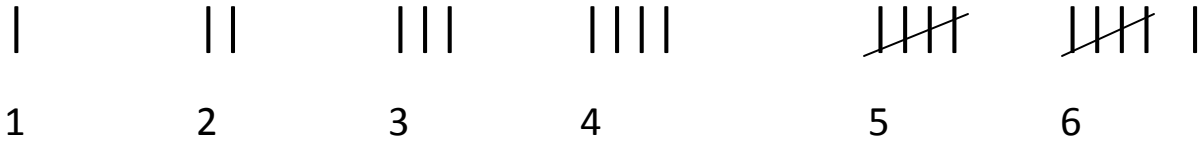
Eighteen thousand is less than eighty thousand

The number 57 is between which pair of numbers:

40 and 50 50 and 60 60 and 70 70 and 80

During the first week of summer vacation, Evan earned \$18 cutting grass and \$12 babysitting. How much did he earn altogether?

Tally marks are used to keep track of a count. Each tally mark counts as one. Here we show the tallies for the numbers one through six.



Notice that the tally marks for five is a diagonal mark crossing four vertical marks.

Making tally marks just makes it easier to count.

Go through your home and use tally marks to count the following objects:

number of windows	
number of doors—include closets	
number of pets	
number of siblings	
number of overhead fans	
number of rugs	
number of chairs	

Add 324 plus 321 equals

subtract 3532 minus 398

count aloud: count by 25 cents from 25 cents to three dollars. Then from three dollars to 25 cents

mental math:

- 6500-500
- 2000-100
- 360-20
- 425-125
- 50+50-25
- 8+8-1+5-2

Multiplication

If there are 5 rows of desk with 6 desks in each row, how many desks are there in all? You can draw it out to help.

To solve you can count out each individual desk, but that would take some time. Or we can count by the number of desks in each row. 5,10,15,20,25,30. Or we can multiply 5 times 6. The x is called a times sign.

Multiplication helps to get your answer more quickly☺ If I have ten children and each child was going to get four pieces of candy, how many pieces do I need? I can count by tens four times. Or I can count by 4's ten times to get my answer.

Keep working on those multiplication facts to help you memorize them and speed up this process.

What multiplication problems is represented by the X's _____

XXXXXX

XXXXXX

XXXXXX

Adding and subtracting dollars and cents.

To add and subtract dollars and cents, we align the decimal points so that we add or subtract digits with the same place value. We write the decimal point in the answer.

$$\begin{array}{r} \$ 3.45 \\ \$ 6.23 \\ + \underline{\$ 0.50} \\ \$10.18 \end{array}$$

Very important to line them up or you will get a wrong answer.

Your turn:

$$\$4.50 - \$3.80 =$$

$\$321.80 + \$1.08 + \$1 =$ if you need to add some zeros as place holders do so

Add $\$5, \$8.75, \$10, \0.35

Kim brought a $\$5$ bill to school to pay for lunch. What amount will she have left after paying for a lunch that costs $\$3.25$?

$$\$543.05 - \$3.89 =$$

Write a multiplication problem for each of the following addition problems:

$8+8+8+8$

$25+25+25$

Find each sum or difference

$\$5.25+\8.92

$\$43.27-\3.99

Draw a number line marked with numbers from -3 to 3

Use tally marks to show the number 9

Lauren hiked 33 miles in one day. If she hiked 15 miles after noon, how many miles did she hike before noon?

Write two addition facts and two subtraction facts for the fact family 5,4,9

Dad paddled the canoe down the river 25 miles each day for 4 days. How far did he go in 4 days?

$7,14,21, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}$

$3+3+3+3 \underline{\hspace{1cm}} 4+4+4$

count aloud: count by 25 cents from 25 cents to three dollars. Then by 50 cents to five dollars.

mental math:

- $3500+500$
- $2500-500$
- $\$7.50+\2.50
- $10+10-5+10-5$
- How much money is 3 quarters
- One foot is 12 inches. Two feet is 24 inches. How many inches in 3 feet
- If a square is 5 inches on each side, what is distance around the square

Find the missing number of

$f-15=24$. We need to find the first number in the subtraction problem. When 15 is subtracted from f , the difference is 24. So f must be more than 24. We will do the opposite of subtraction which is addition to solve. If we add 24 plus 15, by reading it backwards we can get the answer of 39. Then we plug in the numbers to see if we are correct.

Your turn:

find the missing number of $45-s=21$

Find the missing number of $n-24=48$

Find the missing number of $63-p=20$

Draw a number line marked with integers from -5 to 5

Use words to name $\$4.48$

Use digits to write eight hundred eighteen thousand, eighty

Use tally marks to make the number 11

Jadyn is reading a 260 page book. She has read 85 pages. How many more pages does she have left to read?

Tammy mixed 32 ounces of soda with 24 ounces of juice to make punch. How many ounces of punch did she make?

Write the equation: Fifty-six is less than sixty-five

Add $\$43.10 + \1.54

$$600 - m = 364 \quad m = \underline{\hspace{2cm}}$$

$\$573 + \$96 + \$427 =$

$$436 + y = 634 \quad y = \underline{\hspace{2cm}}$$

$$100 - n = 48 \quad n = \underline{\hspace{2cm}}$$

$$6 + 48 + 9 + w = 100 \quad w = \underline{\hspace{2cm}}$$

Write two addition and two subtraction facts for the fact family 2,8,10

Change this addition problem to a multiplication problem $10+10+10+10$

In a class of 23 students, there are 12 girls. Do girls make up more than or less than half of the class. Explain

Draw a horizontal segment and a vertical ray

Crystal has \$7.00 in her wallet and \$4.37 in a coin jar. How much does she have altogether?

Ethan had a collection of rocks. He gave Collin 17 rocks. Ethan now has 56 rocks. Write a subtraction equation that can be used to find the number of rocks Ethan had before he gave some away. Then solve.

count aloud: count up and down by 50s between 0 and 500

mental math:

- 50+50+50
- 500+500+500
- 24+26
- 240+260
- 480-200
- 10+6-1+5+10

6 <u>X1</u>	2 <u>X6</u>	5 <u>X2</u>	3 <u>X8</u>	4 <u>X2</u>	3 <u>X6</u>	1 <u>X2</u>	2 <u>X2</u>	1 <u>X1</u>	6 <u>X4</u>
3 <u>X5</u>	8 <u>X2</u>	4 <u>X6</u>	3 <u>X4</u>	1 <u>X0</u>	3 <u>X7</u>	4 <u>X6</u>	4 <u>X8</u>	3 <u>X2</u>	5 <u>X4</u>
8 <u>X2</u>	6 <u>X0</u>	1 <u>X9</u>	3 <u>X4</u>	9 <u>X2</u>	5 <u>X5</u>	1 <u>X5</u>	9 <u>X9</u>	1 <u>X2</u>	6 <u>X2</u>
3 <u>X1</u>	5 <u>X6</u>	3 <u>X3</u>	3 <u>X0</u>	4 <u>X0</u>	3 <u>X6</u>	4 <u>X4</u>	3 <u>X8</u>	5 <u>x10</u>	3 <u>X10</u>
5 <u>X9</u>	5 <u>X4</u>	1 <u>X7</u>	7 <u>X2</u>	6 <u>X6</u>	5 <u>X2</u>	4 <u>X2</u>	7 <u>X6</u>	8 <u>X6</u>	8 <u>X8</u>
9 <u>X6</u>	5 <u>X7</u>	2 <u>X4</u>	5 <u>X6</u>	9 <u>X2</u>	0 <u>X0</u>	1 <u>X4</u>	1 <u>X3</u>	4 <u>X7</u>	9 <u>X4</u>
10 <u>X2</u>	5 <u>X3</u>	10 <u>X6</u>	5 <u>X3</u>	5 <u>X8</u>	5 <u>X1</u>	5 <u>X0</u>	4 <u>X4</u>	3 <u>X2</u>	3 <u>X9</u>

Draw a number line with integers from -3 to 10

Mike was the ninth person in line. How many people were in front of him

Use tally marks to show thirteen

Write two addition and two subtraction facts for the fact family of 1,9,10

Tickets to an amusement park are on sale for \$1.00 each. On the first day of sale, the park sold one hundred sixty-four tickets. After three days, the park sold 239 tickets. How many tickets did the park sell the second day?

$$a - 819 = 100 \text{ solve for } a$$

$$\$6.00 - \$5.43 =$$

$$501 - 256 =$$

$$\$4.36 + \$2.18 + \$3.98 =$$

$$n + 96 = 392 \quad n = \underline{\hspace{2cm}}$$

$$360 + b + 47 = 518 \quad b = \underline{\hspace{2cm}}$$

6 <u>X1</u>	2 <u>X6</u>	5 <u>X2</u>	3 <u>X8</u>	4 <u>X2</u>	3 <u>X6</u>	1 <u>X2</u>	2 <u>X2</u>	1 <u>X1</u>	6 <u>X4</u>
3 <u>X5</u>	8 <u>X2</u>	4 <u>X6</u>	3 <u>X4</u>	1 <u>X0</u>	3 <u>X7</u>	4 <u>X6</u>	4 <u>X8</u>	3 <u>X2</u>	5 <u>X4</u>
8 <u>X2</u>	6 <u>X0</u>	1 <u>X9</u>	3 <u>X4</u>	9 <u>X2</u>	5 <u>X5</u>	1 <u>X5</u>	9 <u>X9</u>	1 <u>X2</u>	6 <u>X2</u>
3 <u>X1</u>	5 <u>X6</u>	3 <u>X3</u>	3 <u>X0</u>	4 <u>X0</u>	3 <u>X6</u>	4 <u>X4</u>	3 <u>X8</u>	5 <u>x10</u>	3 <u>X10</u>
5 <u>X9</u>	5 <u>X4</u>	1 <u>X7</u>	7 <u>X2</u>	6 <u>X6</u>	5 <u>X2</u>	4 <u>X2</u>	7 <u>X6</u>	8 <u>X6</u>	8 <u>X8</u>
9 <u>X6</u>	5 <u>X7</u>	2 <u>X4</u>	5 <u>X6</u>	9 <u>X2</u>	0 <u>X0</u>	1 <u>X4</u>	1 <u>X3</u>	4 <u>X7</u>	9 <u>X4</u>
10 <u>X2</u>	5 <u>X3</u>	10 <u>X6</u>	5 <u>X3</u>	5 <u>X8</u>	5 <u>X1</u>	5 <u>X0</u>	4 <u>X4</u>	3 <u>X2</u>	3 <u>X9</u>
3 <u>x3</u>	9 <u>x9</u>	7 <u>x7</u>	5 <u>x5</u>	3 <u>x7</u>	6 <u>x8</u>	2 <u>x2</u>	10 <u>x6</u>	12 <u>x12</u>	6 <u>x4</u>
6 <u>x6</u>	4 <u>x4</u>	2 <u>x2</u>	10 <u>x10</u>	5 <u>x7</u>	0 <u>x6</u>	7 <u>x4</u>	3 <u>x7</u>	8 <u>x8</u>	6 <u>x7</u>

$5+5+5 \underline{\hspace{2cm}} 3 \times 5$

Use digits and symbols to write twelve equals ten plus two

What term is missing

....., 32, 40, 48, _____, 64,

Use digits to write eight hundred eighty dollars and eight cents

Compare 346,129 _____ 346,132

A dozen is 12. How many is half dozen?

Write a multiplication problem that shows how to find the total number of Os

000000

000000

000000

000000

Which number is greater -3 or 1

There are 3 feet in one yard. How many feet are in ten yards

6 <u>X1</u>	2 <u>X6</u>	5 <u>X2</u>	3 <u>X8</u>	4 <u>X2</u>	3 <u>X6</u>	1 <u>X2</u>	2 <u>X2</u>	1 <u>X1</u>	6 <u>X4</u>
3 <u>X5</u>	8 <u>X2</u>	4 <u>X6</u>	3 <u>X4</u>	1 <u>X0</u>	3 <u>X7</u>	4 <u>X6</u>	4 <u>X8</u>	3 <u>X2</u>	5 <u>X4</u>
8 <u>X2</u>	6 <u>X0</u>	1 <u>X9</u>	3 <u>X4</u>	9 <u>X2</u>	5 <u>X5</u>	1 <u>X5</u>	9 <u>X9</u>	1 <u>X2</u>	6 <u>X2</u>
3 <u>X1</u>	5 <u>X6</u>	3 <u>X3</u>	3 <u>X0</u>	4 <u>X0</u>	3 <u>X6</u>	4 <u>X4</u>	3 <u>X8</u>	5 <u>x10</u>	3 <u>X10</u>
5 <u>X9</u>	5 <u>X4</u>	1 <u>X7</u>	7 <u>X2</u>	6 <u>X6</u>	5 <u>X2</u>	4 <u>X2</u>	7 <u>X6</u>	8 <u>X6</u>	8 <u>X8</u>
9 <u>X6</u>	5 <u>X7</u>	2 <u>X4</u>	5 <u>X6</u>	9 <u>X2</u>	0 <u>X0</u>	1 <u>X4</u>	1 <u>X3</u>	4 <u>X7</u>	9 <u>X4</u>
10 <u>X2</u>	5 <u>X3</u>	10 <u>X6</u>	5 <u>X3</u>	5 <u>X8</u>	5 <u>X1</u>	5 <u>X0</u>	4 <u>X4</u>	3 <u>X2</u>	3 <u>X9</u>
3 <u>x3</u>	9 <u>x9</u>	7 <u>x7</u>	5 <u>x5</u>	3 <u>x7</u>	6 <u>x8</u>	2 <u>x2</u>	10 <u>x6</u>	12 <u>x12</u>	6 <u>x4</u>
6 <u>x6</u>	4 <u>x4</u>	2 <u>x2</u>	10 <u>x10</u>	5 <u>x7</u>	0 <u>x6</u>	7 <u>x4</u>	3 <u>x7</u>	8 <u>x8</u>	6 <u>x7</u>

Jadyn had \$28. After she spent \$12, how much money did she have?

After losing 234 pounds, Jumbo the elephant still weighed 4,368 pounds. How much did Jumbo weigh before he lost the weight?

The price went up from \$26 to \$32. By how many dollars did the price increase?

use tally marks to show the number 15

Use words to name \$206.50

For the fact family 7,8,15 write two addition and two subtraction facts

Brooklyn had \$24. She spent \$8. How much money did Brooklyn have left

$b - 256 = 67$ what is b

6 <u>X1</u>	2 <u>X6</u>	5 <u>X2</u>	3 <u>X8</u>	4 <u>X2</u>	3 <u>X6</u>	1 <u>X2</u>	2 <u>X2</u>	1 <u>X1</u>	6 <u>X4</u>
3 <u>X5</u>	8 <u>X2</u>	4 <u>X6</u>	3 <u>X4</u>	1 <u>X0</u>	3 <u>X7</u>	4 <u>X6</u>	4 <u>X8</u>	3 <u>X2</u>	5 <u>X4</u>
8 <u>X2</u>	6 <u>X0</u>	1 <u>X9</u>	3 <u>X4</u>	9 <u>X2</u>	5 <u>X5</u>	1 <u>X5</u>	9 <u>X9</u>	1 <u>X2</u>	6 <u>X2</u>
3 <u>X1</u>	5 <u>X6</u>	3 <u>X3</u>	3 <u>X0</u>	4 <u>X0</u>	3 <u>X6</u>	4 <u>X4</u>	3 <u>X8</u>	5 <u>x10</u>	3 <u>X10</u>
5 <u>X9</u>	5 <u>X4</u>	1 <u>X7</u>	7 <u>X2</u>	6 <u>X6</u>	5 <u>X2</u>	4 <u>X2</u>	7 <u>X6</u>	8 <u>X6</u>	8 <u>X8</u>
9 <u>X6</u>	5 <u>X7</u>	2 <u>X4</u>	5 <u>X6</u>	9 <u>X2</u>	0 <u>X0</u>	1 <u>X4</u>	1 <u>X3</u>	4 <u>X7</u>	9 <u>X4</u>
10 <u>X2</u>	5 <u>X3</u>	10 <u>X6</u>	5 <u>X3</u>	5 <u>X8</u>	5 <u>X1</u>	5 <u>X0</u>	4 <u>X4</u>	3 <u>X2</u>	3 <u>X9</u>
3 <u>x3</u>	9 <u>x9</u>	7 <u>x7</u>	5 <u>x5</u>	3 <u>x7</u>	6 <u>x8</u>	2 <u>x2</u>	10 <u>x6</u>	12 <u>x12</u>	6 <u>x4</u>
6 <u>x6</u>	4 <u>x4</u>	2 <u>x2</u>	10 <u>x10</u>	5 <u>x7</u>	0 <u>x6</u>	7 <u>x4</u>	3 <u>x7</u>	8 <u>x8</u>	6 <u>x7</u>

$900 - c = 90 \quad c = \underline{\hspace{2cm}}$

$g + 843 = 1000 \quad g = \underline{\hspace{2cm}}$

Draw a horizontal segment

Draw two intersecting lines

Use digits and a comparison symbol to write: Eight hundred forty is greater than eight hundred fourteen

What number is missing

...24,30,36, _____ 48,54

4×3 _____ 2×6 compare

The letter y stands for what in $36 + y = 63$

How many cents is half a dollar?

Greg had \$32. He spent \$15. How much does he have left?

$\frac{6}{X1}$	$\frac{2}{X6}$	$\frac{5}{X2}$	$\frac{3}{X8}$	$\frac{4}{X2}$	$\frac{3}{X6}$	$\frac{1}{X2}$	$\frac{2}{X2}$	$\frac{1}{X1}$	$\frac{6}{X4}$
$\frac{3}{X5}$	$\frac{8}{X2}$	$\frac{4}{X6}$	$\frac{3}{X4}$	$\frac{1}{X0}$	$\frac{3}{X7}$	$\frac{4}{X6}$	$\frac{4}{X8}$	$\frac{3}{X2}$	$\frac{5}{X4}$
$\frac{8}{X2}$	$\frac{6}{X0}$	$\frac{1}{X9}$	$\frac{3}{X4}$	$\frac{9}{X2}$	$\frac{5}{X5}$	$\frac{1}{X5}$	$\frac{9}{X9}$	$\frac{1}{X2}$	$\frac{6}{X2}$
$\frac{3}{X1}$	$\frac{5}{X6}$	$\frac{3}{X3}$	$\frac{3}{X0}$	$\frac{4}{X0}$	$\frac{3}{X6}$	$\frac{4}{X4}$	$\frac{3}{X8}$	$\frac{5}{x10}$	$\frac{3}{X10}$
$\frac{5}{X9}$	$\frac{5}{X4}$	$\frac{1}{X7}$	$\frac{7}{X2}$	$\frac{6}{X6}$	$\frac{5}{X2}$	$\frac{4}{X2}$	$\frac{7}{X6}$	$\frac{8}{X6}$	$\frac{8}{X8}$
$\frac{9}{X6}$	$\frac{5}{X7}$	$\frac{2}{X4}$	$\frac{5}{X6}$	$\frac{9}{X2}$	$\frac{0}{X0}$	$\frac{1}{X4}$	$\frac{1}{X3}$	$\frac{4}{X7}$	$\frac{9}{X4}$
$\frac{10}{X2}$	$\frac{5}{X3}$	$\frac{10}{X6}$	$\frac{5}{X3}$	$\frac{5}{X8}$	$\frac{5}{X1}$	$\frac{5}{X0}$	$\frac{4}{X4}$	$\frac{3}{X2}$	$\frac{3}{X9}$
$\frac{3}{x3}$	$\frac{9}{x9}$	$\frac{7}{x7}$	$\frac{5}{x5}$	$\frac{3}{x7}$	$\frac{6}{x8}$	$\frac{2}{x2}$	$\frac{10}{x6}$	$\frac{12}{x12}$	$\frac{6}{x4}$
$\frac{6}{x6}$	$\frac{4}{x4}$	$\frac{2}{x2}$	$\frac{10}{x10}$	$\frac{5}{x7}$	$\frac{0}{x6}$	$\frac{7}{x4}$	$\frac{3}{x7}$	$\frac{8}{x8}$	$\frac{6}{x7}$

A ticket to a basketball game costs \$24. How much would 3 tickets cost?

To solve, we could add 24 three different times or we could do a multiplication problem

$$\begin{array}{r} | \\ 24 \\ \times 3 \\ \hline 72 \end{array}$$

Remember how we have to carry the one from the 4×3 ?

Your turn:

Six different times next month, a salesperson must make a 325 mile round trip. How many total miles will the salesperson travel next month

$$\begin{array}{r} 327 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 7654 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 5432 \\ \times 5 \\ \hline \end{array}$$

$\frac{6}{X1}$	$\frac{2}{X6}$	$\frac{5}{X2}$	$\frac{3}{X8}$	$\frac{4}{X2}$	$\frac{3}{X6}$	$\frac{1}{X2}$	$\frac{2}{X2}$	$\frac{1}{X1}$	$\frac{6}{X4}$
$\frac{3}{X5}$	$\frac{8}{X2}$	$\frac{4}{X6}$	$\frac{3}{X4}$	$\frac{1}{X0}$	$\frac{3}{X7}$	$\frac{4}{X6}$	$\frac{4}{X8}$	$\frac{3}{X2}$	$\frac{5}{X4}$
$\frac{8}{X2}$	$\frac{6}{X0}$	$\frac{1}{X9}$	$\frac{3}{X4}$	$\frac{9}{X2}$	$\frac{5}{X5}$	$\frac{1}{X5}$	$\frac{9}{X9}$	$\frac{1}{X2}$	$\frac{6}{X2}$
$\frac{3}{X1}$	$\frac{5}{X6}$	$\frac{3}{X3}$	$\frac{3}{X0}$	$\frac{4}{X0}$	$\frac{3}{X6}$	$\frac{4}{X4}$	$\frac{3}{X8}$	$\frac{5}{x10}$	$\frac{3}{X10}$
$\frac{5}{X9}$	$\frac{5}{X4}$	$\frac{1}{X7}$	$\frac{7}{X2}$	$\frac{6}{X6}$	$\frac{5}{X2}$	$\frac{4}{X2}$	$\frac{7}{X6}$	$\frac{8}{X6}$	$\frac{8}{X8}$
$\frac{9}{X6}$	$\frac{5}{X7}$	$\frac{2}{X4}$	$\frac{5}{X6}$	$\frac{9}{X2}$	$\frac{0}{X0}$	$\frac{1}{X4}$	$\frac{1}{X3}$	$\frac{4}{X7}$	$\frac{9}{X4}$
$\frac{10}{X2}$	$\frac{5}{X3}$	$\frac{10}{X6}$	$\frac{5}{X3}$	$\frac{5}{X8}$	$\frac{5}{X1}$	$\frac{5}{X0}$	$\frac{4}{X4}$	$\frac{3}{X2}$	$\frac{3}{X9}$
$\frac{3}{x3}$	$\frac{9}{x9}$	$\frac{7}{x7}$	$\frac{5}{x5}$	$\frac{3}{x7}$	$\frac{6}{x8}$	$\frac{2}{x2}$	$\frac{10}{x6}$	$\frac{12}{x12}$	$\frac{6}{x4}$
$\frac{6}{x6}$	$\frac{4}{x4}$	$\frac{2}{x2}$	$\frac{10}{x10}$	$\frac{5}{x7}$	$\frac{0}{x6}$	$\frac{7}{x4}$	$\frac{3}{x7}$	$\frac{8}{x8}$	$\frac{6}{x7}$

Draw a vertical line segment

Sam read 3 books. Each book had 120 pages. How many pages did he read. First answer once by adding and again by multiplying

The spider spun its web for 6 hours the first night and for some more hours the second night. If the spider spent a total of 14 hours spinning its web those two nights, how many hours did the spider spin the second night?

rewrite your problems vertically for easier solving

$24 \times 3 = \underline{\hspace{2cm}}$

$\$35 \times 4 = \underline{\hspace{2cm}}$

$56 \times 6 = \underline{\hspace{2cm}}$

$c + 147 = 316$ what is c $\underline{\hspace{2cm}}$

$604 - w = 406$ what is w $\underline{\hspace{2cm}}$

$3 + n + 15 + 9 = 60$ what is n $\underline{\hspace{2cm}}$

$\frac{6}{X1}$	$\frac{2}{X6}$	$\frac{5}{X2}$	$\frac{3}{X8}$	$\frac{4}{X2}$	$\frac{3}{X6}$	$\frac{1}{X2}$	$\frac{2}{X2}$	$\frac{1}{X1}$	$\frac{6}{X4}$
$\frac{3}{X5}$	$\frac{8}{X2}$	$\frac{4}{X6}$	$\frac{3}{X4}$	$\frac{1}{X0}$	$\frac{3}{X7}$	$\frac{4}{X6}$	$\frac{4}{X8}$	$\frac{3}{X2}$	$\frac{5}{X4}$
$\frac{8}{X2}$	$\frac{6}{X0}$	$\frac{1}{X9}$	$\frac{3}{X4}$	$\frac{9}{X2}$	$\frac{5}{X5}$	$\frac{1}{X5}$	$\frac{9}{X9}$	$\frac{1}{X2}$	$\frac{6}{X2}$
$\frac{3}{X1}$	$\frac{5}{X6}$	$\frac{3}{X3}$	$\frac{3}{X0}$	$\frac{4}{X0}$	$\frac{3}{X6}$	$\frac{4}{X4}$	$\frac{3}{X8}$	$\frac{5}{x10}$	$\frac{3}{X10}$
$\frac{5}{X9}$	$\frac{5}{X4}$	$\frac{1}{X7}$	$\frac{7}{X2}$	$\frac{6}{X6}$	$\frac{5}{X2}$	$\frac{4}{X2}$	$\frac{7}{X6}$	$\frac{8}{X6}$	$\frac{8}{X8}$
$\frac{9}{X6}$	$\frac{5}{X7}$	$\frac{2}{X4}$	$\frac{5}{X6}$	$\frac{9}{X2}$	$\frac{0}{X0}$	$\frac{1}{X4}$	$\frac{1}{X3}$	$\frac{4}{X7}$	$\frac{9}{X4}$
$\frac{10}{X2}$	$\frac{5}{X3}$	$\frac{10}{X6}$	$\frac{5}{X3}$	$\frac{5}{X8}$	$\frac{5}{X1}$	$\frac{5}{X0}$	$\frac{4}{X4}$	$\frac{3}{X2}$	$\frac{3}{X9}$
$\frac{3}{x3}$	$\frac{9}{x9}$	$\frac{7}{x7}$	$\frac{5}{x5}$	$\frac{3}{x7}$	$\frac{6}{x8}$	$\frac{2}{x2}$	$\frac{10}{x6}$	$\frac{12}{x12}$	$\frac{6}{x4}$
$\frac{6}{x6}$	$\frac{4}{x4}$	$\frac{2}{x2}$	$\frac{10}{x10}$	$\frac{5}{x7}$	$\frac{0}{x6}$	$\frac{7}{x4}$	$\frac{3}{x7}$	$\frac{8}{x8}$	$\frac{6}{x7}$

compare 12×1 _____ 24×0

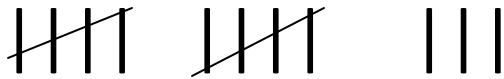
Five hundred four thousand is less than five hundred fourteen thousand, write with digits and a comparison symbol

What number is missing

...21,28,35,_____,49,56

What digit is 375 is in the hundreds place

What number is ten more than these tally marks



Multiply vertically $321 \times 5 =$

$432 \times 4 =$

$\frac{6}{X1}$	$\frac{2}{X6}$	$\frac{5}{X2}$	$\frac{3}{X8}$	$\frac{4}{X2}$	$\frac{3}{X6}$	$\frac{1}{X2}$	$\frac{2}{X2}$	$\frac{1}{X1}$	$\frac{6}{X4}$
$\frac{3}{X5}$	$\frac{8}{X2}$	$\frac{4}{X6}$	$\frac{3}{X4}$	$\frac{1}{X0}$	$\frac{3}{X7}$	$\frac{4}{X6}$	$\frac{4}{X8}$	$\frac{3}{X2}$	$\frac{5}{X4}$
$\frac{8}{X2}$	$\frac{6}{X0}$	$\frac{1}{X9}$	$\frac{3}{X4}$	$\frac{9}{X2}$	$\frac{5}{X5}$	$\frac{1}{X5}$	$\frac{9}{X9}$	$\frac{1}{X2}$	$\frac{6}{X2}$
$\frac{3}{X1}$	$\frac{5}{X6}$	$\frac{3}{X3}$	$\frac{3}{X0}$	$\frac{4}{X0}$	$\frac{3}{X6}$	$\frac{4}{X4}$	$\frac{3}{X8}$	$\frac{5}{x10}$	$\frac{3}{X10}$
$\frac{5}{X9}$	$\frac{5}{X4}$	$\frac{1}{X7}$	$\frac{7}{X2}$	$\frac{6}{X6}$	$\frac{5}{X2}$	$\frac{4}{X2}$	$\frac{7}{X6}$	$\frac{8}{X6}$	$\frac{8}{X8}$
$\frac{9}{X6}$	$\frac{5}{X7}$	$\frac{2}{X4}$	$\frac{5}{X6}$	$\frac{9}{X2}$	$\frac{0}{X0}$	$\frac{1}{X4}$	$\frac{1}{X3}$	$\frac{4}{X7}$	$\frac{9}{X4}$
$\frac{10}{X2}$	$\frac{5}{X3}$	$\frac{10}{X6}$	$\frac{5}{X3}$	$\frac{5}{X8}$	$\frac{5}{X1}$	$\frac{5}{X0}$	$\frac{4}{X4}$	$\frac{3}{X2}$	$\frac{3}{X9}$
$\frac{3}{x3}$	$\frac{9}{x9}$	$\frac{7}{x7}$	$\frac{5}{x5}$	$\frac{3}{x7}$	$\frac{6}{x8}$	$\frac{2}{x2}$	$\frac{10}{x6}$	$\frac{12}{x12}$	$\frac{6}{x4}$
$\frac{6}{x6}$	$\frac{4}{x4}$	$\frac{2}{x2}$	$\frac{10}{x10}$	$\frac{5}{x7}$	$\frac{0}{x6}$	$\frac{7}{x4}$	$\frac{3}{x7}$	$\frac{8}{x8}$	$\frac{6}{x7}$

count aloud: count up and down by 5s between 1 and 51. Count up and down by 200s between 0 and 2000.

Mental math:

- 3×30 plus 3×2
- 4×20 plus 4×3
- $6 \times \$700$
- one meter is 1000 millimeters. How many millimeters is 1 meter minus 100 millimeters
- $6 \times 4 + 1 + 10 - 5 + 3$

Multiplying three numbers.

When faced with multiplying three numbers, we first multiply two of the factors together. Then we multiply the product we get by the third factor.

$9 \times 6 \times 5$ nine times six is 54 and then 54 times 5 equals 270

Your turn:

Find the product of $5 \times 3 \times 2$

Find the product of $2 \times 3 \times 2$

Find the missing factor $w \times 3 = 18$

There are 12 inches in a foot and 3 feet in a yard. How many inches long is a wall that is 5 yards long?

Find the missing letter: $5m = 30$ (when two variables are together that means to multiply) so what times 5 is 30

$3b = 21$ what is b

Draw a horizontal line and a vertical line. Then write the words above the lines

In one class there are 33 students. Fourteen of the students are boys. How many are girls?

$6 \times 4 \times 5 =$

$5 \times 6 \times 8$

$\$407 \times 8 =$

$\$7.32 \times 6 =$ *don't forget decimal

$n - 354 = 46$ n = _____

Think of one digit odd number and a one digit even number. Multiply them. Is the product even or odd? how do you know?

$6 \times 4 = 8 \times ?$

$\frac{6}{X1}$	$\frac{2}{X6}$	$\frac{5}{X2}$	$\frac{3}{X8}$	$\frac{4}{X2}$	$\frac{3}{X6}$	$\frac{1}{X2}$	$\frac{2}{X2}$	$\frac{1}{X1}$	$\frac{6}{X4}$
$\frac{3}{X5}$	$\frac{8}{X2}$	$\frac{4}{X6}$	$\frac{3}{X4}$	$\frac{1}{X0}$	$\frac{3}{X7}$	$\frac{4}{X6}$	$\frac{4}{X8}$	$\frac{3}{X2}$	$\frac{5}{X4}$
$\frac{8}{X2}$	$\frac{6}{X0}$	$\frac{1}{X9}$	$\frac{3}{X4}$	$\frac{9}{X2}$	$\frac{5}{X5}$	$\frac{1}{X5}$	$\frac{9}{X9}$	$\frac{1}{X2}$	$\frac{6}{X2}$
$\frac{3}{X1}$	$\frac{5}{X6}$	$\frac{3}{X3}$	$\frac{3}{X0}$	$\frac{4}{X0}$	$\frac{3}{X6}$	$\frac{4}{X4}$	$\frac{3}{X8}$	$\frac{5}{x10}$	$\frac{3}{X10}$
$\frac{5}{X9}$	$\frac{5}{X4}$	$\frac{1}{X7}$	$\frac{7}{X2}$	$\frac{6}{X6}$	$\frac{5}{X2}$	$\frac{4}{X2}$	$\frac{7}{X6}$	$\frac{8}{X6}$	$\frac{8}{X8}$
$\frac{9}{X6}$	$\frac{5}{X7}$	$\frac{2}{X4}$	$\frac{5}{X6}$	$\frac{9}{X2}$	$\frac{0}{X0}$	$\frac{1}{X4}$	$\frac{1}{X3}$	$\frac{4}{X7}$	$\frac{9}{X4}$
$\frac{10}{X2}$	$\frac{5}{X3}$	$\frac{10}{X6}$	$\frac{5}{X3}$	$\frac{5}{X8}$	$\frac{5}{X1}$	$\frac{5}{X0}$	$\frac{4}{X4}$	$\frac{3}{X2}$	$\frac{3}{X9}$
$\frac{3}{x3}$	$\frac{9}{x9}$	$\frac{7}{x7}$	$\frac{5}{x5}$	$\frac{3}{x7}$	$\frac{6}{x8}$	$\frac{2}{x2}$	$\frac{10}{x6}$	$\frac{12}{x12}$	$\frac{6}{x4}$
$\frac{6}{x6}$	$\frac{4}{x4}$	$\frac{2}{x2}$	$\frac{10}{x10}$	$\frac{5}{x7}$	$\frac{0}{x6}$	$\frac{7}{x4}$	$\frac{3}{x7}$	$\frac{8}{x8}$	$\frac{6}{x7}$

Use digits and symbols to write this comparison:

Eight times eight is greater than nine times seven

What are the next three integers in this counting sequence: 8,6,4,2,....

Jim and his friends each purchased a bookcase. The friend's bookcase is half the height of Jim's. If the friend's bookcase is 3 feet tall, how tall is Jim's?

Madelyn bought four folders for \$0.37 each. Altogether how much money did the four folders cost?

mental math:

- $2 \times 5 \times 6$
- 4×60 plus 4×5
- $9 \times 9 - 1 + 10$

The \$45 dress was marked down to \$29. By how many dollars had the dress been marked down?

$$3 \times \$4.83 =$$

$$\$706 \times 4 =$$

Division

Searching for a missing factor is called division. It is the opposite of multiplication. The product is shown inside a symbol called a division box $\overline{\hspace{1cm}}$. The two factors are outside the box called factors.

$3 \overline{) 12}$ to solve this problem, we need to know what number times 3 equals 12. Since $3 \times 4 = 12$, we know the missing factor is 4. We write our answer this way:

$$\begin{array}{r} 4 \\ 3 \overline{) 12} \end{array}$$

Your turn:

$$4 \overline{) 20}$$

$$5 \overline{) 25}$$

It can also be written like this $20 \div 4 = \underline{\hspace{1cm}}$

An art teacher plans to distribute 80 sheets of paper equally to each of the ten students. How many sheets of paper should each student receive?

Multiplication and division are inverse operations. One undoes the other. If we start with 5 and multiply by 6 we get a product of 30. If we then divide 30 by 6 we get 5.

Write two multiplication facts and two division facts for the fact family 2,3,6

Solve

$24 \div 3 = \underline{\hspace{2cm}}$

$81 \div 9 = \underline{\hspace{2cm}}$

$40 \div 5 = \underline{\hspace{2cm}}$

$4 \div 4 = \underline{\hspace{2cm}}$

$10 \div 5 = \underline{\hspace{2cm}}$

$16 \div 8 = \underline{\hspace{2cm}}$

$24 \div 6 = \underline{\hspace{2cm}}$

$8 \div 4 = \underline{\hspace{2cm}}$

$8 \div 8 = \underline{\hspace{2cm}}$

$6 \div 1 = \underline{\hspace{2cm}}$

$20 \div 2 = \underline{\hspace{2cm}}$

$30 \div 5 = \underline{\hspace{2cm}}$

$356 + t + 67 = 500$ what is t $\underline{\hspace{2cm}}$

Find the missing factor is $6 \times 6 = 4n$

Use digits and symbols to write this comparisons:

Nine times five is less than seven times seven

Jentzen cut a 15 inch long piece of wood in half. How long was each piece

Mental math:

- $4 \times 5 \times 6$
- $5 \times 8 \times 3$
- $7 \times 7 + 1 + 25 + 25$
- I have 4 quarters, 3 dimes, and 8 pennies. How much do I have?

$\frac{6}{X1}$	$\frac{2}{X6}$	$\frac{5}{X2}$	$\frac{3}{X8}$	$\frac{4}{X2}$	$\frac{3}{X6}$	$\frac{1}{X2}$	$\frac{2}{X2}$	$\frac{1}{X1}$	$\frac{6}{X4}$
$\frac{3}{X5}$	$\frac{8}{X2}$	$\frac{4}{X6}$	$\frac{3}{X4}$	$\frac{1}{X0}$	$\frac{3}{X7}$	$\frac{4}{X6}$	$\frac{4}{X8}$	$\frac{3}{X2}$	$\frac{5}{X4}$
$\frac{8}{X2}$	$\frac{6}{X0}$	$\frac{1}{X9}$	$\frac{3}{X4}$	$\frac{9}{X2}$	$\frac{5}{X5}$	$\frac{1}{X5}$	$\frac{9}{X9}$	$\frac{1}{X2}$	$\frac{6}{X2}$
$\frac{3}{X1}$	$\frac{5}{X6}$	$\frac{3}{X3}$	$\frac{3}{X0}$	$\frac{4}{X0}$	$\frac{3}{X6}$	$\frac{4}{X4}$	$\frac{3}{X8}$	$\frac{5}{x10}$	$\frac{3}{X10}$
$\frac{5}{X9}$	$\frac{5}{X4}$	$\frac{1}{X7}$	$\frac{7}{X2}$	$\frac{6}{X6}$	$\frac{5}{X2}$	$\frac{4}{X2}$	$\frac{7}{X6}$	$\frac{8}{X6}$	$\frac{8}{X8}$
$\frac{9}{X6}$	$\frac{5}{X7}$	$\frac{2}{X4}$	$\frac{5}{X6}$	$\frac{9}{X2}$	$\frac{0}{X0}$	$\frac{1}{X4}$	$\frac{1}{X3}$	$\frac{4}{X7}$	$\frac{9}{X4}$
$\frac{10}{X2}$	$\frac{5}{X3}$	$\frac{10}{X6}$	$\frac{5}{X3}$	$\frac{5}{X8}$	$\frac{5}{X1}$	$\frac{5}{X0}$	$\frac{4}{X4}$	$\frac{3}{X2}$	$\frac{3}{X9}$
$\frac{3}{x3}$	$\frac{9}{x9}$	$\frac{7}{x7}$	$\frac{5}{x5}$	$\frac{3}{x7}$	$\frac{6}{x8}$	$\frac{2}{x2}$	$\frac{10}{x6}$	$\frac{12}{x12}$	$\frac{6}{x4}$
$\frac{6}{x6}$	$\frac{4}{x4}$	$\frac{2}{x2}$	$\frac{10}{x10}$	$\frac{5}{x7}$	$\frac{0}{x6}$	$\frac{7}{x4}$	$\frac{3}{x7}$	$\frac{8}{x8}$	$\frac{6}{x7}$

There are some different ways to show division: Here are three ways. These all mean the same thing twelve divided by 3

$$3 \overline{) 12}$$

$$12 \div 3$$

$$\frac{12}{3}$$

In $12 \div 3 = 4$, the numbers are called the dividend (12) the divisor (3) and the quotient (4)

Write this division problem in two other forms:

$$24 \div 6$$

Show 10 divided by 2 in three forms

Show 21 divided by 3 equals 7 in three forms

$$\text{Solve } 60 \div 10 = \underline{\hspace{2cm}}$$

$$42 \div 6 = \underline{\hspace{2cm}}$$

$$12 \div 4 = \underline{\hspace{2cm}}$$

Draw a horizontal line marked with even integers from -6 to 6

$\frac{6}{X1}$	$\frac{2}{X6}$	$\frac{5}{X2}$	$\frac{3}{X8}$	$\frac{4}{X2}$	$\frac{3}{X6}$	$\frac{1}{X2}$	$\frac{2}{X2}$	$\frac{1}{X1}$	$\frac{6}{X4}$
$\frac{3}{X5}$	$\frac{8}{X2}$	$\frac{4}{X6}$	$\frac{3}{X4}$	$\frac{1}{X0}$	$\frac{3}{X7}$	$\frac{4}{X6}$	$\frac{4}{X8}$	$\frac{3}{X2}$	$\frac{5}{X4}$
$\frac{8}{X2}$	$\frac{6}{X0}$	$\frac{1}{X9}$	$\frac{3}{X4}$	$\frac{9}{X2}$	$\frac{5}{X5}$	$\frac{1}{X5}$	$\frac{9}{X9}$	$\frac{1}{X2}$	$\frac{6}{X2}$
$\frac{3}{X1}$	$\frac{5}{X6}$	$\frac{3}{X3}$	$\frac{3}{X0}$	$\frac{4}{X0}$	$\frac{3}{X6}$	$\frac{4}{X4}$	$\frac{3}{X8}$	$\frac{5}{x10}$	$\frac{3}{X10}$
$\frac{5}{X9}$	$\frac{5}{X4}$	$\frac{1}{X7}$	$\frac{7}{X2}$	$\frac{6}{X6}$	$\frac{5}{X2}$	$\frac{4}{X2}$	$\frac{7}{X6}$	$\frac{8}{X6}$	$\frac{8}{X8}$
$\frac{9}{X6}$	$\frac{5}{X7}$	$\frac{2}{X4}$	$\frac{5}{X6}$	$\frac{9}{X2}$	$\frac{0}{X0}$	$\frac{1}{X4}$	$\frac{1}{X3}$	$\frac{4}{X7}$	$\frac{9}{X4}$
$\frac{10}{X2}$	$\frac{5}{X3}$	$\frac{10}{X6}$	$\frac{5}{X3}$	$\frac{5}{X8}$	$\frac{5}{X1}$	$\frac{5}{X0}$	$\frac{4}{X4}$	$\frac{3}{X2}$	$\frac{3}{X9}$
$\frac{3}{x3}$	$\frac{9}{x9}$	$\frac{7}{x7}$	$\frac{5}{x5}$	$\frac{3}{x7}$	$\frac{6}{x8}$	$\frac{2}{x2}$	$\frac{10}{x6}$	$\frac{12}{x12}$	$\frac{6}{x4}$
$\frac{6}{x6}$	$\frac{4}{x4}$	$\frac{2}{x2}$	$\frac{10}{x10}$	$\frac{5}{x7}$	$\frac{0}{x6}$	$\frac{7}{x4}$	$\frac{3}{x7}$	$\frac{8}{x8}$	$\frac{6}{x7}$

Write two multiplication facts and two division facts for the fact family 4,6,24

Use tally marks to show 17

Autumn reads 40 pages in one day. How many does she read in 4 days

There are 806 men and women at church. If 432 of them are women, how many are men?

What is the sum of five hundred twenty-six and six hundred eight-four

$24 \div 6 = \underline{\quad}$

$15 \div 3 = \underline{\quad}$

$10 \div 2 = \underline{\quad}$

$8m = 24$ what is m $\underline{\quad}$

$90 \div 10 = \underline{\quad}$

6 <u>X1</u>	2 <u>X6</u>	5 <u>X2</u>	3 <u>X8</u>	4 <u>X2</u>	3 <u>X6</u>	1 <u>X2</u>	2 <u>X2</u>	1 <u>X1</u>	6 <u>X4</u>
3 <u>X5</u>	8 <u>X2</u>	4 <u>X6</u>	3 <u>X4</u>	1 <u>X0</u>	3 <u>X7</u>	4 <u>X6</u>	4 <u>X8</u>	3 <u>X2</u>	5 <u>X4</u>
8 <u>X2</u>	6 <u>X0</u>	1 <u>X9</u>	3 <u>X4</u>	9 <u>X2</u>	5 <u>X5</u>	1 <u>X5</u>	9 <u>X9</u>	1 <u>X2</u>	6 <u>X2</u>
3 <u>X1</u>	5 <u>X6</u>	3 <u>X3</u>	3 <u>X0</u>	4 <u>X0</u>	3 <u>X6</u>	4 <u>X4</u>	3 <u>X8</u>	5 <u>x10</u>	3 <u>X10</u>
5 <u>X9</u>	5 <u>X4</u>	1 <u>X7</u>	7 <u>X2</u>	6 <u>X6</u>	5 <u>X2</u>	4 <u>X2</u>	7 <u>X6</u>	8 <u>X6</u>	8 <u>X8</u>
9 <u>X6</u>	5 <u>X7</u>	2 <u>X4</u>	5 <u>X6</u>	9 <u>X2</u>	0 <u>X0</u>	1 <u>X4</u>	1 <u>X3</u>	4 <u>X7</u>	9 <u>X4</u>
10 <u>X2</u>	5 <u>X3</u>	10 <u>X6</u>	5 <u>X3</u>	5 <u>X8</u>	5 <u>X1</u>	5 <u>X0</u>	4 <u>X4</u>	3 <u>X2</u>	3 <u>X9</u>
3 <u>x3</u>	9 <u>x9</u>	7 <u>x7</u>	5 <u>x5</u>	3 <u>x7</u>	6 <u>x8</u>	2 <u>x2</u>	10 <u>x6</u>	12 <u>x12</u>	6 <u>x4</u>
6 <u>x6</u>	4 <u>x4</u>	2 <u>x2</u>	10 <u>x10</u>	5 <u>x7</u>	0 <u>x6</u>	7 <u>x4</u>	3 <u>x7</u>	8 <u>x8</u>	6 <u>x7</u>

Fractions

A fraction describes part of a whole. The “whole” may be a single thing such as a whole pie or a whole inch or the whole thing might be a group such as a whole class of students or a whole bag of cookies.

We use two numbers to write a fraction. The bottom number is called the denominator, shows the number of equal parts in the whole. The top number is called the numerator, it shows how many of the equal parts are counted.

3 numerator
4 denominator

This is how we read these common fractions:

$\frac{1}{2}$ = one half

$\frac{1}{4}$ = one fourth

$\frac{3}{4}$ = three fourths or three quarters

$\frac{1}{10}$ = one tenth

How many cents is one fourth of a dollar?

The word fourth means that the whole dollar (100 cents) is divided into four equal parts.

$$100 \div 4 = 25$$

In each fourth there are 25 cents

One fourth of a dollar is 25 cents

Three fourths $\frac{3}{4}$ of a dollar is 75 cents

One tenth of the 30 students ate pizza for lunch. How many students ate pizza?

One tenth means one of ten equal parts. We can find one tenth of 30 by dividing 30 by 10

$$30 \div 10 = 3$$

One tenth of the 30 is 3, so 3 students ate pizza

From yesterday:

Your turn

There were ten pumpkins in a patch. One fourth of them were too small. How many were too small?

Out of those ten pumpkins, one tenth were too large. How many were too large?

Those ten pumpkins, half of them were just the right size. How many pumpkins is that?

Two half circles can be put together to form a whole circle. The equation below states that two halves equal a whole:

$$\frac{1}{2} + \frac{1}{2} = 1$$

Draw me a vertical line

Draw a set of parallel line segments

Draw a ray

$\frac{6}{X1}$	$\frac{2}{X6}$	$\frac{5}{X2}$	$\frac{3}{X8}$	$\frac{4}{X2}$	$\frac{3}{X6}$	$\frac{1}{X2}$	$\frac{2}{X2}$	$\frac{1}{X1}$	$\frac{6}{X4}$
$\frac{3}{X5}$	$\frac{8}{X2}$	$\frac{4}{X6}$	$\frac{3}{X4}$	$\frac{1}{X0}$	$\frac{3}{X7}$	$\frac{4}{X6}$	$\frac{4}{X8}$	$\frac{3}{X2}$	$\frac{5}{X4}$
$\frac{8}{X2}$	$\frac{6}{X0}$	$\frac{1}{X9}$	$\frac{3}{X4}$	$\frac{9}{X2}$	$\frac{5}{X5}$	$\frac{1}{X5}$	$\frac{9}{X9}$	$\frac{1}{X2}$	$\frac{6}{X2}$
$\frac{3}{X1}$	$\frac{5}{X6}$	$\frac{3}{X3}$	$\frac{3}{X0}$	$\frac{4}{X0}$	$\frac{3}{X6}$	$\frac{4}{X4}$	$\frac{3}{X8}$	$\frac{5}{x10}$	$\frac{3}{X10}$
$\frac{5}{X9}$	$\frac{5}{X4}$	$\frac{1}{X7}$	$\frac{7}{X2}$	$\frac{6}{X6}$	$\frac{5}{X2}$	$\frac{4}{X2}$	$\frac{7}{X6}$	$\frac{8}{X6}$	$\frac{8}{X8}$
$\frac{9}{X6}$	$\frac{5}{X7}$	$\frac{2}{X4}$	$\frac{5}{X6}$	$\frac{9}{X2}$	$\frac{0}{X0}$	$\frac{1}{X4}$	$\frac{1}{X3}$	$\frac{4}{X7}$	$\frac{9}{X4}$
$\frac{10}{X2}$	$\frac{5}{X3}$	$\frac{10}{X6}$	$\frac{5}{X3}$	$\frac{5}{X8}$	$\frac{5}{X1}$	$\frac{5}{X0}$	$\frac{4}{X4}$	$\frac{3}{X2}$	$\frac{3}{X9}$
$\frac{3}{x3}$	$\frac{9}{x9}$	$\frac{7}{x7}$	$\frac{5}{x5}$	$\frac{3}{x7}$	$\frac{6}{x8}$	$\frac{2}{x2}$	$\frac{10}{x6}$	$\frac{12}{x12}$	$\frac{6}{x4}$
$\frac{6}{x6}$	$\frac{4}{x4}$	$\frac{2}{x2}$	$\frac{10}{x10}$	$\frac{5}{x7}$	$\frac{0}{x6}$	$\frac{7}{x4}$	$\frac{3}{x7}$	$\frac{8}{x8}$	$\frac{6}{x7}$

Perimeter

When you measure the length of the sides of an object and then add them all up you get the perimeter.



We know that a rectangle's sides are congruent or the same so both sides would be 4 and the other side would be 2

$$4 + 4 + 2 + 2 = 12 \text{ inches}$$

What is the perimeter of your book to the nearest inch? _____

What is the perimeter of this piece of paper in inches? _____

What is the perimeter of the door frame in feet? _____

Greater than or less than

42×3 _____ 56 5×5 _____ 25

$$\begin{array}{r} 5432 \\ +432 \\ \hline \end{array}$$

$$\begin{array}{r} 3255 \\ +4325 \\ \hline \end{array}$$

$$\begin{array}{r} 5432 \\ -678 \\ \hline \end{array}$$

$$\begin{array}{r} 327 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 7654 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 5432 \\ \times 5 \\ \hline \end{array}$$

Shapes

A rectangle has how many sides? _____

Draw me one

A square has how many sides? _____

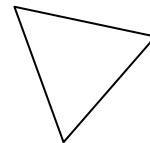
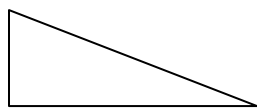
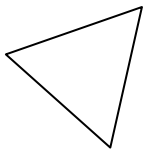
Draw me one

A circle has how many sides? _____

Draw me one

When two triangles are the same size and shape, we say they are congruent.

Which two are congruent



Here are some more geometrical shapes



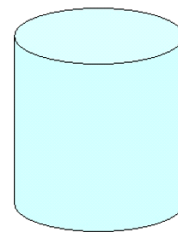
Cone



sphere



cube



cylinder

List some things that are this shape

Cone _____

Sphere _____

Cube _____

Cylinder _____

Calendar

How many months are there in one year? _____

What number month is your birthday? _____

How many days of the week are there? _____

Write the days of the week? _____,

_____,

Name me a month that spring occurs? _____

Name me a month that winter occurs? _____

Name me a month when summer occurs? _____

Name me a month when falls occurs? _____

What day was it yesterday? _____

What day is it tomorrow? _____

What day do we go to church on? _____

What day does the weekend begin on? _____

When is your birthday? _____

What is today's date—the month, day, and year? _____

What year is it? _____

What year were you born in? _____

You have been practicing writing numbers. When you write the numbers such as "21" it is written with a hyphen twenty-one. 45 is written forty-five

Write the following numbers in words:

14 _____ 27 _____

59 _____ 76 _____

100 _____ 45 _____

Write the words for the following

1st _____

2nd _____

3rd _____

4th _____

5th _____

6th _____

7th _____

8th _____

9th _____

10th _____

Practicing division facts. Remember division is opposite of multiplication

$24 \div 3 = \underline{\hspace{2cm}}$

$81 \div 9 = \underline{\hspace{2cm}}$

$40 \div 5 = \underline{\hspace{2cm}}$

$4 \div 4 = \underline{\hspace{2cm}}$

$90 \div 9 = \underline{\hspace{2cm}}$

$56 \div 8 = \underline{\hspace{2cm}}$

$24 \div 6 = \underline{\hspace{2cm}}$

$27 \div 3 = \underline{\hspace{2cm}}$

$8 \div 8 = \underline{\hspace{2cm}}$

$6 \div 1 = \underline{\hspace{2cm}}$

$20 \div 2 = \underline{\hspace{2cm}}$

$63 \div 9 = \underline{\hspace{2cm}}$

$56 \div 7 = \underline{\hspace{2cm}}$

$6 \div 3 = \underline{\hspace{2cm}}$

$45 \div 5 = \underline{\hspace{2cm}}$

$6 \div 3 = \underline{\hspace{2cm}}$

$6 \div 6 = \underline{\hspace{2cm}}$

$10 \div 5 = \underline{\hspace{2cm}}$

$18 \div 3 = \underline{\hspace{2cm}}$

$4 \div 1 = \underline{\hspace{2cm}}$

$15 \div 5 = \underline{\hspace{2cm}}$

$30 \div 3 = \underline{\hspace{2cm}}$

$24 \div 4 = \underline{\hspace{2cm}}$

$42 \div 6 = \underline{\hspace{2cm}}$

$28 \div 7 = \underline{\hspace{2cm}}$

$50 \div 5 = \underline{\hspace{2cm}}$

$8 \div 2 = \underline{\hspace{2cm}}$

$35 \div 7 = \underline{\hspace{2cm}}$

$72 \div 8 = \underline{\hspace{2cm}}$

$16 \div 2 = \underline{\hspace{2cm}}$

$28 \div 7 = \underline{\hspace{2cm}}$

$36 \div 6 = \underline{\hspace{2cm}}$

$64 \div 8 = \underline{\hspace{2cm}}$

$21 \div 3 = \underline{\hspace{2cm}}$

$27 \div 9 = \underline{\hspace{2cm}}$

$40 \div 5 = \underline{\hspace{2cm}}$

$81 \div 9 = \underline{\hspace{2cm}}$

$42 \div 7 = \underline{\hspace{2cm}}$

$9 \div 3 = \underline{\hspace{2cm}}$

$4 \div 2 = \underline{\hspace{2cm}}$

$10 \div 1 = \underline{\hspace{2cm}}$

$44 \div 11 = \underline{\hspace{2cm}}$

$16 \div 4 = \underline{\hspace{2cm}}$

$5 \div 5 = \underline{\hspace{2cm}}$

$36 \div 9 = \underline{\hspace{2cm}}$

$18 \div 3 = \underline{\hspace{2cm}}$

$18 \div 9 = \underline{\hspace{2cm}}$

$30 \div 5 = \underline{\hspace{2cm}}$

Write < > =

$762 \underline{\hspace{1cm}} 543$

$22,987 \underline{\hspace{1cm}} 23,789$

$756 \underline{\hspace{1cm}} 765$

$987,789 \underline{\hspace{1cm}} 987,879$

$23,876 \underline{\hspace{1cm}} 22,000$

$890 \underline{\hspace{1cm}} 980$

$766 \underline{\hspace{1cm}} 766$

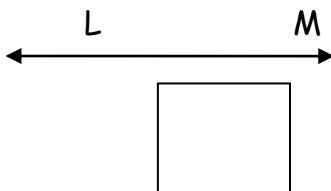
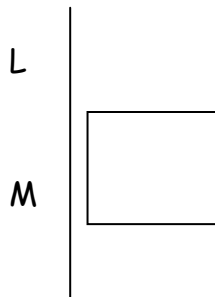
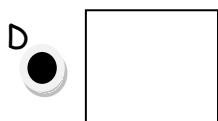
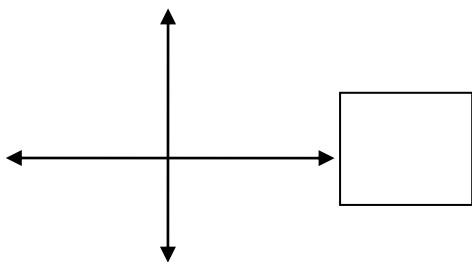
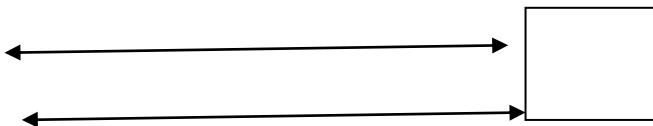
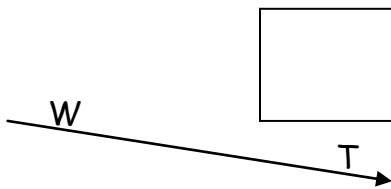
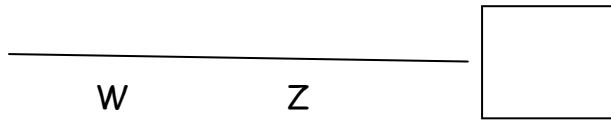
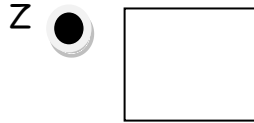
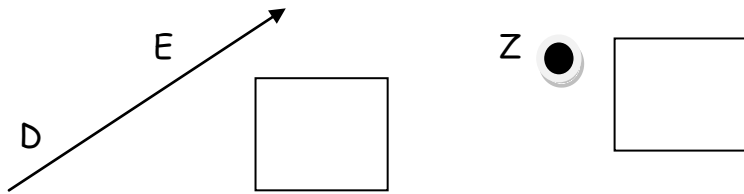
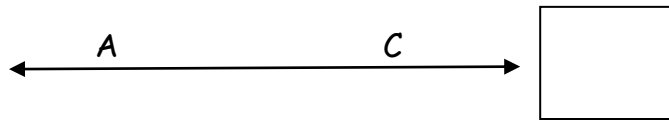
$4329 \underline{\hspace{1cm}} 3297$

$555 \underline{\hspace{1cm}} 5555$

$432,287 + 432 = \underline{\hspace{2cm}}$

$5432 \times 8 = \underline{\hspace{2cm}}$

Write the correct letter in the box next to the figure.



- A. Line AC
- B. Line LM
- C. Line segment LM
- D. Line segment WZ
- E. Parallel lines
- F. Perpendicular lines
- G. Point D
- H. Point Z
- I. Ray DE
- J. Ray WZ

Draw a pentagon

Draw a hexagon

If there are 12 eggs in a dozen, how many eggs are in $\frac{1}{2}$ dozen? _____

If there are 100 centimeters (cm) in one meter, how many cm are in $\frac{1}{2}$ meter? _____

If there are 16 ounces in a pound, how many ounces are in $\frac{1}{2}$ pound? _____

If there are 4 quarts in a gallon, how many quarts are in $\frac{1}{2}$ gallon? _____

If there are 60 seconds in a minute, how many seconds are in $\frac{1}{2}$ minute? _____

If there are 1,000 meters in a kilometer, how many meters are in $\frac{1}{2}$ kilometer? _____

If there are 30 days in most months, how many days are in $\frac{1}{2}$ month? _____

If there are 24 hours in a day, how many hours are in $\frac{1}{2}$ day? _____

If there are 36 inches in one yard, how many inches are in $\frac{1}{2}$ yard? _____

If there are 2,000 pounds in a ton, how many pounds are in $\frac{1}{2}$ ton? _____

Draw an octagon

Put commas in the correct places. Remember to start on the right.

4256727899

432215876

567854321

7654

4321

6543

8907

5655

-4321

-4211

-3897

-5678

-3478

What is the VALUE of the underlined digit or how much is it worth?

432,876,543

321,765_____

Write the standard form of the expanded version:

400,000+20,000+4,000+900+80+8=_____

30,000,000+2,000,000+400,000+30,000+7,000+600+80+2

70,000+400+6=_____

Multiplication with zeros

Any time you have a number times a multiple of ten you just add extra zeros.

If you have $342 \times 100 =$ there are 2 zeros so your answer is 34,200

If you have $567 \times 1000 =$ there are 3 zeros so your answer is 567,000

Solve:

$354 \times 10 = \underline{\hspace{2cm}}$

$4325 \times 1000 = \underline{\hspace{2cm}}$

$5423 \times 100 = \underline{\hspace{2cm}}$

$543 \times 100 = \underline{\hspace{2cm}}$

$53 \times 10000 = \underline{\hspace{2cm}}$

$3,231 \times 10000 = \underline{\hspace{2cm}}$

1. I bought a ball for \$2.42, a bat for \$1.75, and a mitt for \$1.25 How much did I spend in all?
2. My plants grew 2 " last month, 3" this month, and I expect they will grow $1 \frac{1}{2}$ more inches in the coming months. How tall will my plants be?
3. My girls weight 23 lbs, 46 lbs, 57 lbs, and 76 lbs. How many lbs all together do they weigh?
4. My boys have driven 3,243 miles this year. My girls have driven 1,768 miles. How many more miles did the boys drive?

count aloud: count up and down by 25s between 0 and 200

mental math:

- 3×40 plus 3×15
- 4×50 plus 4×4
- The parking lot has 560 spots. Two hundred spots are empty. How many spots are filled?
- One minute is 60 seconds. How many seconds are in 3 minutes.

At Mountain View Academy, there are 4 classes of 5th graders with 30 students in each class. Altogether, how many students are in the 4 classes?

The coach separated 48 players into 6 teams with the same number of players on each team. How many players were on each team?

Jared raked leaves and filled 28 bags!! On each trip he could carry away 4 bags with leaves. How many trips did it take Jared to carry away all the bags?

On the shelf were 4 cartons of eggs. There were 12 eggs in each carton. How many eggs were in all four cartons?

Jadyn opened a bottle containing 32 ounces of milk and poured 8 ounces of milk into a bowl of cereal. How many ounces of milk remained in the bottle?

The set of drums costs eight hundred dollars. The band has earned four hundred eighty-seven dollars. How much more must the band earn in order to buy the drums?

Write two multiplication and two division facts for the fact family 3,4,12

$72 \div 8 =$

$6n = 42$

$36 \div 9 =$

$6n = 48$

$70/10$

$$\begin{array}{r} \overline{) 56} \\ 7 \end{array}$$

$367 \times 8 =$ rewrite vertical

$\$5.04 \times 7 =$

$268 + m = 687$

$r - 4568 = 6318$

$5003 - w = 876$

If a dozen items are divided into two equal groups, how many will be in each group?

What are the next three terms in this counting sequence

....50,60,70,80,90, _____, _____, _____

Use words to show how this problem is read $10/2$

The fraction $\frac{1}{2}$ is equivalent to what decimal and what percent?

If you have $\frac{1}{2}$ of the total whole thing, you have $\frac{1}{2}$ of the 100% so you have 50%.

The decimal is if you have $\frac{1}{2}$ of 1 whole. Half of one whole is 0.50 like half of 1.00 is .50 cents.

Multiply 3 numbers: do two numbers at a time, then the next one.

$4 \times 5 \times 3 = \underline{\hspace{2cm}}$

$10 \times 2 \times 5 = \underline{\hspace{2cm}}$

$40 \times 2 \times 3 = \underline{\hspace{2cm}}$

$3 \times 3 \times 3 = \underline{\hspace{2cm}}$

Remember tally marks? Make me tally marks for the following numbers:

6

8

12

21

Fill in the blanks:

1 gallon is _____ quarts

1 yard is _____ feet

1 foot is _____ inches

1 mile is _____ feet

1 quart is _____ pints

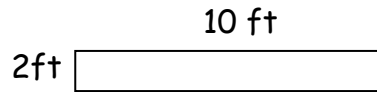
1 pint is _____ cups

Perimeter---add up the sides

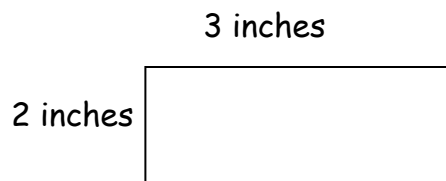
Area is the length times the width $A=l \times w$



What is the area:
What is the perimeter:



What is the area:
What is the perimeter:



what is the area:
What is the perimeter:

We know that multiplication and division are the inverse of each other, right? We have done simple division for example $10 \div 2 = 5$ and we know that $5 \times 2 = 10$ the opposite. Not all division problems will come out evenly. Let's say we divide $16 \div 5 = ?$

$$5 \overline{) 16}$$

To answer this question, we think, "what number of fives is close to but not more than 16?" We answer this with 3. we write 3 above the box and then multiply to show that 3 times 5 is 15.

$$\begin{array}{r} 3 \\ 5 \overline{) 16} \\ \underline{-15} \\ 1 \end{array}$$

The amount leftover is called the remainder. Here the remainder is 1, which means one leftover. $16 \div 5 = 3 \text{ r}1$

YOUR TURN:

If you had 16 people waiting in line for a water ride and each boat holds 6 people. How many boats do you need to fit everyone? Set it up with division

Divide. Write each answer with a remainder. rewrite them with the division bar signs

$23 \div 5 =$

$50 \div 6 =$

$23 \div 4 =$

$34 \div 9 =$

Which of these will have a remainder?

$60 \div 10$

$44 \div 5$

$18 \div 2$

Draw two horizontal lines, one above the other

At a dinner party, each guest is to receive a small bag of gifts. How many gifts should be placed in each bag if there are 8 guests and 32 gifts altogether?

Compare 46,208 _____ 46,028

How many $\frac{1}{4}$ circles equal a half circle?

The fraction $\frac{1}{2}$ is equivalent to what decimal? _____ what percent? _____

Seventy-five chairs are to be placed in a large room and arranged in rows of ten. How many chairs will be in the last row?

Mr Bill has 10 quarters, if he gives each of his 3 grandchildren 3 quarters, how much money will he have left?

What comes next 50,40,40,20,10, _____, _____, _____

Use words to show how this problem is read $4 \overline{) 12}$

$$\$36.15 - \$29.81 =$$

$$3904 \times 4 =$$

The fraction $\frac{1}{4}$ is equivalent to 0.25 decimal and 25%. Think in terms of money quarters to remember this.

If you had $\frac{3}{4}$ how much percent would you have? _____ how much decimal?

Two digit multiplication---ask if you need to know how to do them. Think of the turtle heads...to help you stay in line.

(do 4×2 , then 4×2 . Then drop an egg (0) and do the 1×4 and 1×4)

$$\begin{array}{r} 44 \\ \times 12 \\ \hline \end{array}$$

$$\begin{array}{r} 72 \\ \times 14 \\ \hline \end{array}$$

$$\begin{array}{r} 22 \\ \times 14 \\ \hline \end{array}$$

$$\begin{array}{r} 11 \\ \times 63 \\ \hline \end{array}$$

Fill in the chart:

There are _____ hours in 1 day

There are _____ minutes in 1 hour

There are _____ seconds in 1 minutes

How many hours are in 6 days? _____

1 ft = _____ in

1 lb = _____ oz

1 pt = _____ cups

1 yd = _____ ft

1 mile = _____ ft

1 gal = _____ qt

More practice—remember to do your turtle heads and if you have to carry some over, do so but don't forget to add. Ask your teacher if you need help.

$$\begin{array}{r} 32 \\ \times 11 \\ \hline \end{array}$$

$$\begin{array}{r} 32 \\ \times 21 \\ \hline \end{array}$$

$$\begin{array}{r} 65 \\ \times 27 \\ \hline \end{array}$$

$$\begin{array}{r} 88 \\ \times 22 \\ \hline \end{array}$$

Rewrite the following and solve:

$$55 \times 22 = \underline{\hspace{2cm}} \quad 43 \times 81 = \underline{\hspace{2cm}}$$

$$87 + 26,654 + 3 = \underline{\hspace{2cm}}$$

$$22 + \underline{\hspace{2cm}} = 39$$

**remember 12 inches equals 1 foot and if you need to borrow in the subtraction do so. You borrow 7 days for a whole week

$$\begin{array}{r} 7\text{ft. } 3\text{ in.} \\ + 2\text{ ft. } 9\text{ in.} \\ \hline \end{array}$$

$$\begin{array}{r} 3\text{ wks } 2\text{ days} \\ - \underline{\hspace{1cm}} 3\text{ days.} \\ \hline \end{array}$$

$$\begin{array}{r} 89 - 27 = x \\ X = \underline{\hspace{2cm}} \end{array}$$

Multiplying money

When you multiply dollars and cents, you do so the same way when you multiply other numbers. When you are finished, you count over how many decimal places there are in your problem and then move it over in your answer. This will be helpful for decimal multiplication later on this year☺

$$\begin{array}{r} \$5.75 \\ \times 43 \\ \hline \end{array} \qquad \begin{array}{r} \$4.32 \\ \times 9 \\ \hline \end{array} \qquad \begin{array}{r} \$2.67 \\ \times 31 \\ \hline \end{array}$$

Roman numerals from 10 to 100, counting by tens

X XX XXX XL L LX LXX LXXX XC C

I is 1 V is 5 X is 10 C is 100 L is 50

Can you write the following numbers based on the chart:

17 _____ 35 _____ 42 _____ 70 _____

Write words for the following:

1st _____ 6th _____

2nd _____ 7th _____

3rd _____ 8th _____

4th _____ 9th _____

5th _____ 10th _____

FRACTIONS

Fractions show a part of a whole. They are written like this

3 numerator

5 denominator

You can make an equivalent fraction by dividing or multiplying both the numerator and denominator by the same number. Here is an example:

$$\frac{1}{4} \times 2 = \frac{2}{8} \quad \text{multiply both the numerator and denominator by 2}$$

$$\frac{9}{12} \div 3 = \frac{3}{4} \quad \text{divide both the numerator and denominator by 3}$$

This shows you that both of those numbers above are equal.

This is also helpful in learning how to simplify your fractions and reduce it down to lowest terms. It is much easier to say I have $\frac{3}{4}$ of a candy bar instead of $\frac{9}{12}$.

A fraction is in the lowest terms when its numerator and denominator have no common factors greater than 1. Remember the trees? So to put a fraction to its lowest terms, divide its numerator and denominator by common factors, until they have no common factor greater than 1.

Here is an example.

$$\frac{5}{10} \div 5 = \frac{1}{2} \quad \text{***remember whatever you do to the numerator has to be done to the denominator}$$

$\frac{1}{2}$ is the reduced to lowest terms. Reduce the following fractions to lowest terms:

$$\frac{4}{16} = \frac{\quad}{\quad} \quad \frac{6}{24} = \frac{\quad}{\quad} \quad \frac{5}{30} = \frac{\quad}{\quad} \quad \frac{2}{10} = \frac{\quad}{\quad}$$

Which fraction is not equal to $\frac{1}{2}$

$9/18$

$10/25$

$25/50$

$50/100$

It cost \$3.48 to rent the movie. Sam gave the clerk \$5.00. How much money should he get back?

A week is 7 days. How many days is 52 weeks?

$\frac{1}{2}$ of the contents of a 20-ounce bag of snack mix is granola. $\frac{1}{4}$ of the contents is coconut.

How many ounces of granola is in the bag? _____

How many ounces of coconut is in the bag? _____

$40 \div 6 =$

$20 \div 3 =$

$60 = n \times 10$

$$\begin{array}{r} \$3.08 \\ \times \quad 7 \\ \hline \end{array}$$

$$\begin{array}{r} 2514 \\ \times \quad 3 \\ \hline \end{array}$$

Use words to show how this problem is read $7 \overline{) 35}$

$4 \times 3 \times 10$

$12 \times 2 \times 10$

Write two multiplication facts and two division facts for the fact family 7,8,56

Improper fractions and mixed numbers

When the numerator of a fraction is equal to or greater than the denominator, the fraction is called an improper fraction. Here are some examples of improper fractions. $\frac{5}{5}$, $\frac{7}{4}$, $\frac{13}{3}$. When

you have an improper fraction they should be written as whole numbers and one part that is a fraction. Instead of saying $\frac{7}{4}$ you should say $1\frac{3}{4}$.

The bar in a fraction means the same thing as a division sign. When you see $7/4$ it says 7 divided by 4. If you were to write that out as a division problem like this:

$$4 \overline{) 7}$$

Then solve.

When you have a remainder, instead of writing it as a remainder (3), you write it as the numerator and the divisor (4) becomes the denominator. Answer is $1\frac{3}{4}$

Let's practice changing these improper fractions to proper fractions with whole numbers. Do them as a division problem so you can get an answer. You will eventually do them in your head.

$$\frac{14}{3} = \underline{\hspace{2cm}}$$

$$\frac{4}{3} = \underline{\hspace{2cm}}$$

$$\frac{11}{5} = \underline{\hspace{2cm}}$$

$$\frac{7}{2} = \underline{\hspace{2cm}}$$

$$\frac{3}{2} = \underline{\hspace{2cm}}$$

$$\frac{16}{5} = \underline{\hspace{2cm}}$$

$$\frac{4}{3} = \underline{\hspace{2cm}}$$

$$\frac{8}{8} = \underline{\hspace{2cm}}$$

$$\frac{32}{32} = \underline{\hspace{2cm}}$$

Identify which of the following is an example of: mixed number, fraction, improper fraction, whole number

33 _____ $2\frac{1}{2}$ _____

$\frac{3}{4}$ _____ $\frac{49}{17}$ _____

$4521 - 213 =$

$732 + 389 =$

$632 \times 22 =$

$128 \times 89 =$

What is the tenth term in this counting sequence...

8,16,24,32

The operations of arithmetic are addition, subtraction, multiplication, and division. When there is more than one operation in a problem, parentheses can show you the order for which ones to do first. Parentheses separate a problem into parts. We do the parts in the parentheses first:

$6 \times (5+4) =$ you first add the $5 + 4$ and get 9. Then multiply the 6×9

Remember do the parentheses first then go outside.

Your turn:

$$6 - (4 \times 2)$$

$$(6 - 4) \times 2$$

$$(8 \times 4) - 2$$

$$(12 - 4) - 1$$

How much is one half of a dollar plus one fourth of a dollar

How many horseshoes are needed to shoe 25 horses

Lauren removed some eggs from a carton of one dozen eggs. If nine eggs remained in the carton, how many eggs did she remove

Write two multiplication and two division facts for the fact family 3,5,15

rewrite these with the bar division to solve easier:

$$60 \div 7$$

$$50 \div 6$$

$$44 \div 11$$

Which digit in 256 shows the number of hundreds

count aloud: count up by 5s from 3 to 42 (3,8,etc)

mental math:

- 10×10 cm
- 10×100 cm
- $\frac{1}{2}$ of 12 inches
- $\frac{1}{4}$ of 12 inches
- What day of the week is 8 days after Sunday

The factors of a number are all the whole numbers that can divide it without leaving a remainder. For example, the factors of 6 are 1,2,3, and 6 because each of these numbers divides into 6 without leaving a remainder.

List the factors of 20

List the factors of 23

Which of these numbers is NOT a factor of 30?

2 3 4 5

At the tree farm, 9 rows of trees with 24 trees in each row were planted. How many trees were planted?

My haircut costs \$6.75. I paid for it with a ten dollar bill. What is my change?

Lauren bought four cartons of milk for \$1.12 each. Altogether, how much did she spend?

Factors

What are the factors of the following numbers:

4 _____

8 _____

9 _____

15 _____

12 _____

$6 \times (7+8)$

$(6 \times 7) + 8$

$9n-54$

$55 \div 8$

$1234 \times 5 =$

$\$5.67 \times 3 =$

$987 \times 6 =$

Use words to name the number 894,201

What is the tenth term in the counting sequence
5,10,15,20.....

Think of a whole number, multiply it by 2. Is the answer odd or even?

Count up from 5s from 4-54.

mental math:

- 10×34
- 32×100
- $\frac{1}{2}$ of \$8
- $\frac{1}{4}$ of \$8
- $\frac{3}{4}$ of \$8
- if the distance around a square is 8 cm what is the length of each side?

Long division---everyone's favorite. Let your teacher walk you through this one. Lets say that you have 234 students. The students will travel on 5 buses. Is it possible for each bus to carry the same number of students?

Write it out here and divide it through. We use the same method for the shorter division as the long, we just continue until we can't bring down any more.

Solve $5n=365$. When two numbers are multiplied, 5 and n. The products is 365. We can find an unknown factor by dividing the product by the known factor.

$$5 \overline{) 365}$$

Your turn:

$$2 \overline{) 432}$$

$$5 \overline{) 325}$$

$$7 \overline{) 497}$$

Practice more from yesterday, just keep going until you get it.

$$3 \overline{) 324}$$

$$3 \overline{) 9,636}$$

$$8 \overline{) 872}$$

$$2 \overline{) 474}$$

$$5 \overline{) 365}$$

$$7 \overline{) 463}$$

Again lets do it again😊

$$2 \overline{) 630}$$

$$6 \overline{) 642}$$

$$5 \overline{) 625}$$

$$7 \overline{) 4977}$$

$$5 \overline{) 25575}$$

Jen bought a bike tire for \$2.98. She paid for it with a \$5 bill. How much should she get back?

Mom sent me with 3 dozen muffins. How many did she send?

mental math:

- how many months are in 2 years
- how many months are in 3 years
- how many days are in 2 weeks
- $\frac{1}{2}$ of 100 cents
- $\frac{3}{4}$ of 100 cents

Draw a horizontal number line from 0 to 500 with only zero and hundreds marked and labeled

Is the point 276 closer to 200 or 300?

On the Clarks road trip, they drove 408 miles on day one, 324 on day two, and 211 on day three. Altogether, how many did they drive total?

Evan is 5 feet tall. One foot is equal to 12 inches. How many inches is Evan?

Brooklyn sold 9 cups of lemonade for \$0.15 each. How much much did she make?

$$864 \div 5 =$$

$$\$2.72 \div 4 = \text{remember to put the decimal point up in the answer}$$

The number 78 is between which of these number pairs

60 and 70

70 and 80

80 and 90

0 and 10

Write the factors of 30

Which digit in 537 shows the number of hundreds?

We measure the passage of time by the movement of Earth. A day is the length of time it takes Earth to spin around on its axis once. We divide a day into 24 hours. Each hour is divided into 60 equal lengths called minutes. Then each minute is divided into 60 seconds.

Besides spinning on its axis, the Earth also moves on a long journey around the sun. The time it takes to travel around the sun is a year. It takes the Earth $365 \frac{1}{4}$ days to travel once around the sun. To make the number of days in every year a whole number, we have three years of 365 days and then one year we have 366 days. A year with 366 is called a leap year.

A year is divided into 12 months. Learn the poem to figure out how many months have how many days.
"Thirty days...etc"

A decade is ten years. Century is 100 years. Millennium is 1000 years.

A century is how many decades?

A leap year has how many days?

Four centuries is how many years?

$$4387+2965+4943=$$

$$\$3.56 \times 8 =$$

$$4010 - r = 563$$

What is the largest 3 digit even number that has the digits 5,6,7

A clock can be either digital or analog. Analog clocks show time with hands that point to places in a circular motion. A quarter of an hour is 15 minutes. A quarter after 2 is 2:15. A quarter to 4 is 3:45. Half past 7 is 7:30.

Elapsed time is the amount of time between a starting time and an ending time. For example, if you start our homework at 4:00pm and finish at 5:15pm, then 1 hour and 15 minutes elapsed between the time you started and time you ended.

Write the time that is a quarter to nine in the morning

Write the time that is 30 minutes after midnight

Write the time that is quarter after 3 in the afternoon

The movie started at 3:15pm and ended at 5:00pm. How long was the movie?

$$528 \div (12-7)$$

$$\$6.00/8$$

Show how to check the division answer for this. Remember multiplication is the opposite of division. Ask mom

$$\begin{array}{r} \underline{22R2} \\ 9 \overline{) 200} \end{array}$$

What are the next three terms in this sequence
....400,500,600,700,____,____,____

How many quarter circles equal a whole circle

The multiples of a number are the answer we get when we multiply the number by 1,2,3,4,and so on. Multiples of 10 all end in zero. 10,20,40,40,...

Any multiple of 10 can be written as a number times 10.

$$20 = 2 \times 10$$

$$30 = 3 \times 10$$

Multiples of 100 all end with at least two zeros

100,200,300,400.....

Any multiple of 100 can be written as a number times 100.

$$200 = 2 \times 100$$

$$300 = 3 \times 100$$

when we multiply by a multiple of ten or hundreds, we can just multiple the whole numbers and then add the number of zeros (1 for ten, 2 for hundreds, 3 for thousands,etc)

11 x 20= we take 11 x2=22 and add a zero 220 is answer

33x 300= take 33 x 3=99 and add two zeros 9900

Your turn:

$$34 \times 200$$

$$500 \times 36$$

$$400 \times 37$$

$$\$1.25 \times 30$$

**when you multiply with decimals, count over the number it is over in this case is 2 times and multiply normally and move over your decimal two times in your answer.

$$\$1.43 \times 200$$

$$24 \times 1000$$

Laura, Lesley, and Sarah equally shared a box of 1 dozen pencils. How many pencils did each girl get?

Write the factors of 60

Show how to check this division answer, is the answer correct?

$$300 \div 7 = 43R1$$

Rounding numbers

The attendance of the game was 614. 614 is rounded to about 600 people who attended the game.
The price of the shoes was \$48.97. The shoes cost about \$50.

Numbers that have been rounded usually end in one or more zeros. When we round a number, we find another number to which the number is near. When you are rounding a number, underline the place value you are rounding and then look to the right. If that number is 5 or more (which is halfway) your number goes up. If it is less than 5 you go back to the nearest rounding number.

For example 67, rounded to the nearest tens. underline the 6 and look at the 7. The seven is more than 5, so we round 67 up to 70. 67 is in between 60 and 70.

For example 43, rounded to the nearest tens. Underline the 4 and look at the 3. Since it is less than five, we go down to the nearest tens, which is 40. 43 is in between 40-50.

You try, round to the nearest hundred 523. It is in between 500 and 600. So underline the 5 and look at the 2. Since it is less than 5, we go down to 500.

Your turn:

Round to the nearest ten:

72 87 49 95

Round to the nearest hundred:

685 420 776 450

$$10 \overline{) 2735}$$

$$563 \times 90 =$$

Write the time that is a quarter after one in the afternoon?

From March 1 to December 1 is how many months?

Recall that the answer to a division problem is called a quotient. Sometimes when we divide, one or more of the digits in the quotient is a zero. When this happens, we continue to follow the four steps in the division algorithm: divide, multiply, subtract, and bring down.

Divide

$$10 \overline{) 6503}$$

$$6 \overline{) \$6.36}$$

$$95 \times 100$$

$$43 \times 200$$

How many years were there from 1492 to 1620

What is the product of nine hundred nineteen and ninety

Let me teach you how to calculate an equivalent fractions by doing the Z method. This is helpful in finding equivalent fractions. For the first one you say, 4 goes into 20 how many times? 5, then $5 \times 4 = 20$ Answer is $\frac{5}{4}$

$$\frac{1}{4} = \frac{\quad}{20}$$

$$\frac{2}{3} = \frac{\quad}{15}$$

$$\frac{3}{5} = \frac{\quad}{25}$$

$$\frac{5}{9} = \frac{\quad}{45}$$

$$\frac{1}{2} = \frac{\quad}{8}$$

$$\frac{3}{4} = \frac{\quad}{12}$$

$$\begin{array}{r} 23,456 \\ - 7,789 \\ \hline \end{array}$$

$$\begin{array}{r} 6,876,999 \\ + 543,865 \\ \hline \end{array}$$

$$5 \overline{) 25670}$$

$$4 \overline{) 23456}$$

$$2 \overline{) 58023}$$

When you add and subtract fractions, as long as the denominators are the same, you add the numerators. When you have $\frac{3}{4} + \frac{1}{4} =$ What you are saying is that you have 3 parts of the pie cut into 4 pieces plus 1 part of the pie cut in 4 pieces. How many do you have altogether? 3 plus 1 equals 4 parts of the pie cut into 4 pieces. Which equals 1 whole pie.

Remember to reduce down your answer to lowest terms if the fraction can be divided by a number or if the top is bigger (improper)

$$\frac{1}{5} + \frac{4}{5} =$$

$$\frac{5}{8} + \frac{6}{8} =$$

$$\frac{5}{9} + \frac{4}{9} =$$

Subtract the same way:

$$\frac{5}{7} - \frac{4}{7} =$$

$$\frac{13}{6} - \frac{5}{6} =$$

$$\frac{8}{3} - \frac{3}{3} =$$

Circle the ODD numbers

432,234,123

543,879,900

543,876,999

543,876,567

The bus started with $6\frac{1}{2}$ gallons of gas. When the driver add $9\frac{1}{2}$ more gallons of gasoline, how much gasoline was in the bus? _____

The leader cut a watermelon in 16 slices. The girls at 8 of the slices. What fraction of the watermelon did they eat? _____

Remember how to multiply by a power of ten? Just add up the number of zeros and add them to your multiplicand. $43 \times 10,000 =$ We know that 43 times 1 is just 43, then we add four zeros 430,000 this is your answer.

$$32 \times 10,000 = \underline{\hspace{2cm}} \quad 456 \times 100 = \underline{\hspace{2cm}}$$

$$29 \times 100 = \underline{\hspace{2cm}} \quad 343 \times 10,000 = \underline{\hspace{2cm}}$$

Draw me a rectangle and divide it into 3 sections. Shade 1 of the boxes. What fraction is shaded?

If an octagon is separated into 8 sections and three of them are shaded, What is the fraction of shaded sections?

Round 615 to the nearest hundred

Round 48 to the nearest tens

$$\begin{array}{r} 342 \\ \times 11 \\ \hline \end{array}$$

$$\begin{array}{r} 32,621 \\ +32,873 \\ \hline \end{array}$$

$$\begin{array}{r} 98,765 \\ -11,399 \\ \hline \end{array}$$

$$8 \overline{) 356}$$

If one pizza is shared equally by 6 people, then each person will get what fraction of the pizza?

mental math

- One week is how many hours
- The ceiling is 280 cm high. Round it to the nearest hundred centimeters
- 8×800
- 10 cents \times 25

Greg estimates that it will take $2\frac{1}{2}$ hours to finish reading a book and $1\frac{1}{2}$ hours to write a book report. To find the amount of time he needs to finish the assignment, add them. Line them up vertically like before

What year was two centuries after 1492

$$3106 - 528 =$$

$$\$80.00 - \$77.56$$

$$804 \times 700$$

$$4228 \div 7$$

A rattlesnake rattles about 50 times each second. At that rate, how many times would it shake in 1 minute?

Round 151 to the nearest hundred

The local pizzeria will donate 14 pizzas to the 6th grade picnic. How many pizzas will there be for each of the three classes of sixth graders

The sides of a triangle are 3cm, 4cm, and 5cm long. What is the distance around the triangle?

Grab a ruler that has centimeter and inch ruler. Length is the measure of the distance between two points.



The words centimeter and millimeter are abbreviated cm and mm. The centimeter scale is divided into segments 1 centimeter long and may be further divided into millimeters. 10 millimeters equals 1 centimeter.

The distance across a nickel is about 2 centimeters. Two centimeters is how many millimeters?

What is the length of this rectangle in centimeters



Measure the length of your math page to the nearest centimeter

How many millimeters is your pencil

$$3 \frac{3}{4} - 1 \frac{2}{4} =$$

$$33 \frac{1}{3} + 33 \frac{1}{3} =$$

One bag of apple chips costs \$.75. Ten bags cost how much?

What is $\frac{1}{2}$ of 51

Jadyn is 5 feet 4 inches tall. How many inches tall is Jadyn?

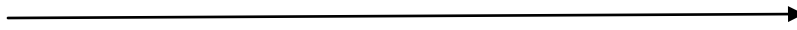
Carl ran a quarter mile in 1 minute 15 seconds. What was his time in seconds?

The pumpkin weighed 3 pounds 8 ounces. How many ounces did the melon weigh?

The 7 of 374,021 means what of the following?

7 70 700 70,000

Use a ruler and measure in inches



$$(20 \times 25) + (5 \times 25)$$

$$1405 \div 7 =$$

If each side of a pentagon is 45 millimeters long, what is the distance around the pentagon?

Lauren could type 90 words per minute. At that rate, how many words could she type in 6 minutes?

Draw a square. Make each side $1 \frac{1}{2}$ inches long

Ada is 6 years older than Mike. If Ada is 21, then how old is Mike?

Average

To find the average of numbers, you add up all the numbers and divide by the number of numbers you are adding.

Mike was swimming laps. His sister recorded the following times for him:

80,85,90,85,90

What is the average?

Add them all up===430

Then divide by 5 the number your adding up. $430 \div 5 = 86$

Your turn:

Our bowling scores were 112,126,98, and 118. What is Ned's average score?

My kids are ages: 21,18,11,7, and 5. What is the average age of my kids?

Change the following mixed numbers into improper fractions.

$1 \frac{1}{4} = \underline{\hspace{2cm}}$

$3 \frac{1}{2} = \underline{\hspace{2cm}}$

$6 \frac{1}{2} = \underline{\hspace{2cm}}$

$2 \frac{3}{4} = \underline{\hspace{2cm}}$

$5 \frac{1}{3} = \underline{\hspace{2cm}}$

$3 \frac{4}{5} = \underline{\hspace{2cm}}$

Change the following into a mixed number

$\frac{14}{3} = \underline{\hspace{2cm}}$

$\frac{22}{5} = \underline{\hspace{2cm}}$

$\frac{11}{5} = \underline{\hspace{2cm}}$

$\frac{11}{4} = \underline{\hspace{2cm}}$

$\frac{9}{2} = \underline{\hspace{2cm}}$

$\frac{32}{9} = \underline{\hspace{2cm}}$

count aloud: count by 12's from 12 to 120

mental math:

- 2 feet 2 inches is how many inches
- Amy has traveled to 5/10 of the 50 states how many states is that
- $3\frac{1}{4} - 1\frac{1}{4} =$
- How many years is a $\frac{1}{4}$ of a century
- What is 25% of 24
- What is 10% of 20
- 2 minutes 10 seconds is how many seconds

Billions			billions comma	millions			millions comma	thousands			thousands comma	ones (units)		
hundreds	tens	ones		hundreds	tens	ones		hundreds	tens	ones		hundreds	tens	ones

We see that the pattern of ones, tens, hundreds repeats itself through the thousands, millions, and billions.

Which digit shows the number of hundred billions in 987,654,321,100

Moving from right to left, the digit in the hundred billions place is 9

What is the value of the 2 in the number 12,345,455,377

2,000,000 2000 2 20,000

The value depends upon its place in the number. Here the 2 means "two million"

Use digits to write one hundred thirty-four billion, six hundred fifty-two million, seven hundred thousand.

134,652,700,000

Write 2,500,000 in expanded notation

We write 2 times its place value plus 5 times its place value

$(2 \times 1,000,000) + (5 \times 100,000)$

Your turn:

Name the value of the place held by the zero in each number

345,052

20,434,677

1,056,888,976

405,632,777

Use words to write the value of the 1 in 321,987,987

Use words to name the number 17400000000

Use digits to write the number: two hundred six million, seven hundred twelve thousand, nine hundred thirty-four

Write 7,500,000 in expanded notation *use parentheses

Jadyn made 5 dozen baked cookies and gave 24 to her friend Autumn. How many cookies did she have left?

Collin weighs 120 pounds. His younger brother, Evan weighs one half as much. How much does his brother weigh?

Write $(1 \times 100) + (4 \times 10) + (8 \times 1)$ in standard form

Draw a rectangle that is 2 inches long and 1 inch wide. Shade all but $\frac{3}{8}$ of it.

Use words to name the number 250,000

Which digit in 789,453,210 shows the number of hundred millions?

Write 1236 to the nearest hundred

$$27 \times 22 =$$

$$167 \times 89 =$$

$$4328 \div 4$$

$$5670 \div 10$$

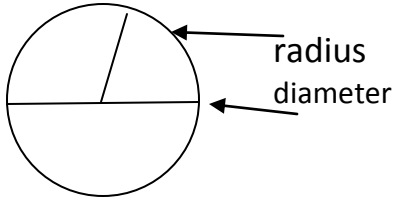
Out of the following numbers what is the average? 2,9,2,5,4,1,4,7,4,2

Perimeter

We know to find the distance around a square or rectangle, we add up all the sides.

If a rectangle's sides measure 3 cm long and 2 cm wide, its perimeter is 10 cm.

How do we find the perimeter of a circle? The distance around a circle is called circumference. The center of the circle is the middle point. The radius is the distance from the center to the curve. The diameter is the distance across the circle through its center. Thus, the diameter is twice the radius.



If I were to say the diameter is 4 inches long, the radius would be? 2 inches long

Your turn:

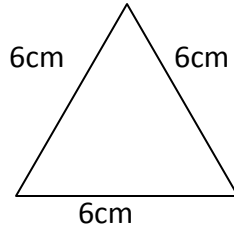
What is the diameter of a circle whose radius is 10 cm? _____

11 ft

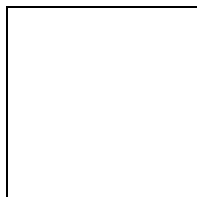


5ft

What is the perimeter of the rectangle? _____



What is the perimeter of the triangle? _____



8in

what is the perimeter of the square? _____

In the number 123,456,789,000 the 2 means, which of the following?

2 billion

20 billion

200 billion

2000billion

Use digits to write nineteen million, four hundred ninety thousand

300x200

800x70

5t=500 what is t

Dividing 2 digit numbers that are multiples of ten. Multiples of ten are 10,20,30,40,We will continue to follow the four steps of the division algorithm: divide, multiple, subtract, and bring down. The divide step is more difficult when dividing by two-digit numbers because we may not quickly recall two digit multiplication facts. To help us divide by a 2-digit number, we may think of dividing by the first digit only. To help us divide this:

$$30 \overline{) 75}$$

We may think $3 \overline{) 7}$

We use the answer to the easier division for the answer to the more difficult division. Since $7 \div 3$ is 2, we use 2 in the division answer. We complete the division by doing the multiplication and subtraction steps.

Notice where we placed the 2 above the box. Since we are dividing 75 by 30, we place the 2 above the 5 of 75 and not above the 7.

$$\begin{array}{r} 2R15 \\ 30 \overline{) 75} \\ \underline{-60} \\ 15 \end{array}$$

The 2 above the 5 means there are two 30s in 75. This is correct place.

Your turn:

The staff arranged 454 chairs in the school gymnasium. Each row contained 30 chairs, except the last row. How many complete rows are in the arrangement. How many chairs in the last row? Divide this out

Divide $60 \overline{) 725}$

$$50 \overline{) 610}$$

$$20 \overline{) \$3.20}$$

$$40 \overline{) \$4.80}$$

*put the decimals up in the dividend

Multiplying by larger numbers.

When we multiply larger numbers, we continue the same method as we do when we do smaller. Make your turtle head on the ones, drop a zero, make another turtle head on the tens, drop a zero, and make the last turtle head on the hundreds.

$$\begin{array}{r} 123 \\ \times 224 \\ \hline \end{array}$$

492 **this is the black turtle outline

2460 **here is your 0 (egg) then the red turtle outline

$$\begin{array}{r} 24600 \\ \hline 27,552 \end{array}$$

**drop two eggs (0) and do the last head that is not marked

Your turn:

$$\begin{array}{r} 342 \\ \times 121 \\ \hline \end{array}$$

$$\begin{array}{r} 675 \\ \times 253 \\ \hline \end{array}$$

Which digit in 98,765,432 is in the ten millions place?

Use digits to write six hundred seventy-nine million, five hundred forty-one thousand, two hundred.

The side of the square measured 10cm long. What is the perimeter?

Multiply the following:

$$\begin{array}{r} 243 \\ \times 102 \\ \hline \end{array}$$

$$\begin{array}{r} 243 \\ \times 120 \\ \hline \end{array}$$

What is 600×400

234×100

Three weeks and three days is how many days?

Draw me a number line with even numbers from -4 to 4

What coin is 10% of a dollar

Sarah's younger brother is 2 years 8 months old. How many months old is her brother?

$$10 \times 10 \div 2 - 1 \div 7 - 1 \times 6 =$$

A foot equals 12 inches. A person who is 5 feet 4 inches tall is how many inches tall?

How many years is 10 centuries

What word is used to name the perimeter of a circle

Use words to name the mixed number $10 \frac{7}{10}$

what is the value of the place held by the zero in 321,098,333

What are the factors of 20

$$\$43.15 - \$28.79 =$$

$$423 \times 302 =$$

$$99 + 36 + 42 =$$

We know in a division problem, the leftover amount is called the remainder. Sometimes we need to write it as a mixed number. Here is how it is done.

If two children share 5 cookies, equally how many cookies will each receive?

$$\begin{array}{r} 2\frac{1}{2} \\ 2 \overline{) 5} \\ \underline{-4} \\ 1 \end{array}$$

We divide 5 into 2 equal parts. We find that the quotient is 2 and the remainder is 1. Each child will receive two cookies and there will be an extra cookie. We can take the extra and divide it in half. Then each will receive $\frac{1}{2}$. To write a remainder as a fraction, we simply make the remainder the numerator of the fraction and make the divisor the denominator of the fraction.

Your turn:

A 15-foot long board is cut into 4 equal lengths. How long is each length?

Divide 17 by 4 with a mixed number remainder

Divide 49 by 10 with a mixed number remainder

Divide 77 by 6 with a mixed number remainder

Evan baked a pie. After dinner, he and his family ate $\frac{1}{3}$ of the pie for dessert. What fraction was not eaten?

If we have 1 whole pie and take away $\frac{1}{3}$ of that, what is the answer?

1 whole pie is cut into 3 pieces so $1 = \frac{3}{3}$ then we subtract from $\frac{1}{3}$

Answer is $\frac{2}{3}$

Your turn: Subtract $1 - \frac{1}{4} =$

$$1 - \frac{2}{3} =$$

$$2\frac{5}{8} + \frac{3}{8} =$$

$$2\frac{7}{8} - \frac{3}{8} =$$

$$364$$

$$\underline{\underline{x211}}$$

Use words to name the mixed number $8\frac{9}{10}$

Divide $15/4$. write the quotient as a mixed number.

Divide $687/40$ and write as a remainder

$\frac{1}{2}$ plus what fraction equals 1
 $\frac{1}{3}$ plus what fraction equals 1
 $\frac{1}{4}$ plus what fraction equals 1
 $\frac{1}{8}$ plus what fraction equals 1

Sarah has read one fourth of her book. What fraction of her book is left unread?

$\frac{5}{8}$ of the girls could do cartwheels. What fraction of the girls could not do them?

In the class there are three more girls than boys. There are 14 boys. How many STUDENTS are in the class?

The diameter of the bike tire is 24 inches. What is the radius?

Round 487 and 326 to the nearest hundred. Then add the rounded numbers. What is the sum?

$$374 \times 360 =$$

$$1340 \div 20$$

$$100 \div 10 =$$

$$100 \div 20 =$$

$$1 - \frac{1}{3} =$$

$$1 - \frac{1}{4} =$$

The following fractions are equal to $\frac{1}{2}$. Read them aloud: $\frac{1}{2}$, $\frac{2}{4}$, $\frac{3}{6}$, $\frac{4}{8}$, $\frac{5}{10}$, $\frac{6}{12}$, $\frac{7}{14}$, $\frac{8}{16}$, $\frac{9}{18}$, $\frac{10}{20}$

How much is half of 5? half of 9? half of 15?

Write the standard form for $(7 \times 1000) + (4 \times 10)$

Round 56 and 23 to the nearest ten. Multiply the rounded numbers. What is their product?

Which of these does not equal $\frac{1}{2}$?

$\frac{6}{12}$

$\frac{12}{24}$

$\frac{24}{48}$

$\frac{48}{98}$

Divide and write the quotient with a fraction: $25/6$

What month is 15 months after November?

$1000 \div 2 =$

$1000 \div 4 =$

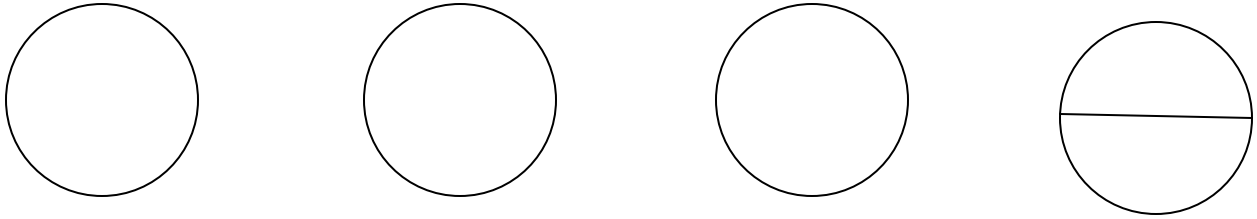
$1 - \frac{1}{5} =$

$1 - \frac{4}{5} =$

I have completed 50% of my 400 mile trip. How far have I gone?

Subtract fraction from whole numbers greater than one.

Imagine we have 4 whole pies on a shelf. If someone asks for half a pie, we would have to cut one of the whole pies into 2 halves. Before removing half of a pie from the pan, we would have 4 pies, but we could call those pies $3\frac{2}{2}$



We use this idea to subtract a fraction from a whole number. We take 1 from the whole number and write it as a fraction with the same denominator as the fraction being subtracted.

We will answer the problem $4 - \frac{1}{2}$ It becomes $3\frac{2}{2} - \frac{1}{2} = 3\frac{1}{2}$

Your turn:

There were 5 pies on the shelf. The server gave $\frac{1}{3}$ of the pie to the customers. How many pies remained on the shelf?

Subtract $3 - \frac{3}{4} =$

$6 - 1\frac{2}{3} =$

A 100 centimeter stick broke into 3 pieces. One piece was 7 cm long and another was 34 cm long. How long was the third piece?

What is the sum of five million, two hundred eighty-four thousand and six million, nine hundred eighteen thousand, five hundred?

Divide $20 \div 9$, write the quotient with a fraction

What is the perimeter of an equilateral triangle whose sides are 20mm each?

What are the equivalent fractions of $\frac{1}{2}$? $\frac{2}{4}$...etc

Place value with money chart

hundreds	tens	ones	decimal point	tenths	hundredths
\$4	3	2	.	3	2
\$100bills	\$10 bills	\$1 bills		dimes	pennies

What is the place value of the 4 in \$6.24?

The 4 is in the second place to the right of the decimal point, which is the hundredths place. This is reasonable because 4 shows the number of pennies, and a penny is a hundredth of a dollar.

Is \$3.67 closer to \$3.60 or \$3.70?

We round \$3.67 to the nearest ten cents, that is the tenths place. Since 7 cents is more than half of a dime, it rounds up to \$3.70

Your turn:

What is the place value of the 5 in each of these numbers

\$25.60 _____ \$54.32 _____ \$12.75 _____ \$21.50 _____

Is \$6.08 closer to \$6.00 or \$6.10?

Divide 25 by 8. write the quotient with a fraction.

$$360 - a = 153$$

$$5m = 875$$

$$1586 \div 60 =$$

$$5 \times 4 \times 3 \times 2 \times 1 \times 0 =$$

Writing fractions with denominators of 10 or 100 as decimal numbers. A common fraction with a denominator of 10 can be written as a decimal number with one decimal place. The numerator of the common fraction is written in the tenths place of the decimal number. For example:

$\frac{1}{10}$ can be written as 0.1

These are both name "one tenth"

Write three tenths as a fraction and decimal number

$\frac{3}{10}$ 0.3

Write twelve hundredths as a common fraction

$\frac{12}{100}$ 0.12

Write $4\frac{9}{100}$ as a decimal number: 4.09

Your turn:

Write each fraction or mixed number as a decimal

$\frac{9}{10}$

$\frac{39}{100}$

$2\frac{99}{100}$

$10 - (3 + 1\frac{1}{3})$

$24 \times 8 \times 50 =$

The cake was cut into 12 slices, and 5 slices have been eaten. What fraction of the cake remains?

$10 \times 10 =$

$10 \times 10 \times 10 =$

Place value	hundreds	tens	ones	decimal point	tenths	hundredths	thousandths
	4	3	2	.	4	2	1

Decimal values, go beyond just money. They keep going to the right just as they keep going to the left. Learn the place value.

Use words to name the decimal number 12.25
twelve AND twenty-five hundredths

Use digits to write the decimal number ten and twelve hundredths

10.12

Use digits to write the decimal number two and thirty-two thousandths
2.032 **put a place holder of zero to move the number over to the thousandths place

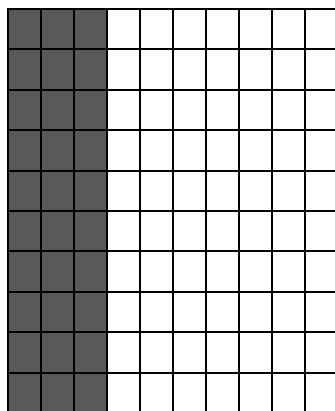
For example. One slice of pizza that is cut into ten pieces can be represented as $\frac{1}{10}$. This same quantity can be represented in decimal form as 0.1 (read one tenth). Five slices of the same pieces can be written as $\frac{5}{10}$ or 0.5 (read as five tenths).

Fractions with 100 parts such as pennies are written with a denominator of 100. Seventy five pennies is $\frac{75}{100}$ of a dollar in fraction form and 0.75 in decimal form. Eight pennies can be written as $\frac{8}{100}$ or 0.08. The placement of the 8 is very important. A misplaced decimal point can change .08 to 0.8

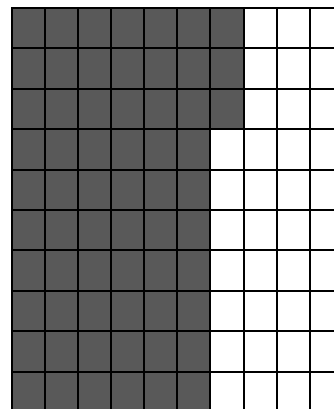
Always read a decimal as a fraction. Read 3.14 as (three and fourteen hundredths) not as three point fourteen or three point one four. The word "and" is used to separate the whole number from the decimal fraction. Read 214.37 as "two hundred fourteen and thirty seven hundredths"

Color in the base ten square to represent a decimal fraction.

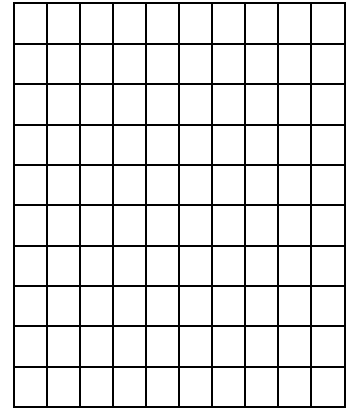
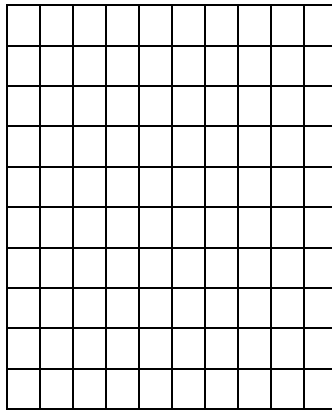
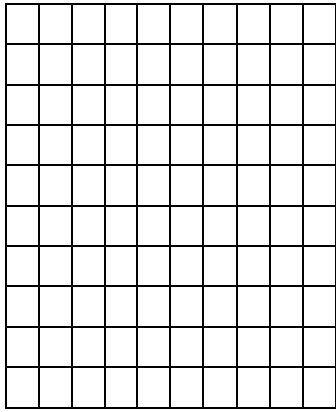
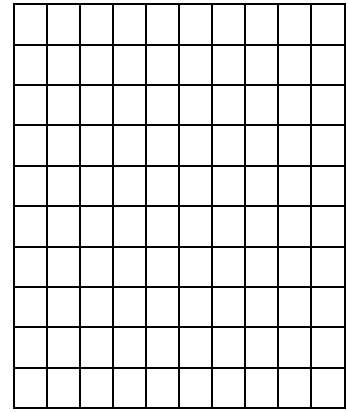
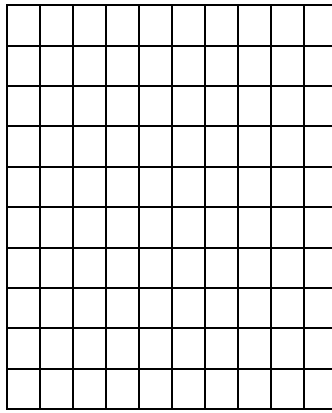
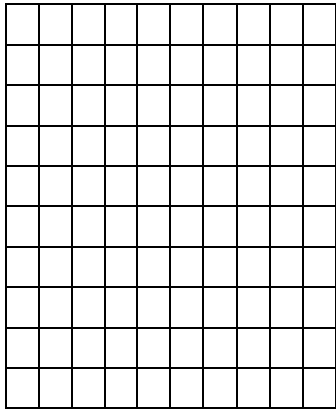
0.3 (three tenths)



0.63 (sixty-three hundredths)



Try shading in the following base ten charts with the correct numbers 0.4 0.11 0.59

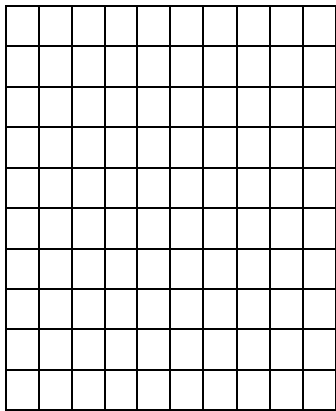


Shade 0.37

shade 0.04

shade 0.7

The decimals 0.3, 0.30, and 0.300 each represent three tenths.



Shade 0.3.

Now shade 0.300 what happens?

$\frac{3}{10}$ is the same as $\frac{3}{100}$. One is just simplified or reduced down. Can you see that?

Lets write equivalent fractions for the following given decimals.

Example $0.45 = \frac{45}{100}$ or $\frac{450}{1000}$ or $\frac{9}{20}$

0.5 _____ 0.9 _____ 0.7 _____

0.1 _____ 0.57 _____ 0.012 _____

To compare decimal fractions look at one digit at a time.

- a) Start with the whole number. The decimal with the larger whole number is greater number.
3.87 > 1.87. If the whole numbers are the same, move right to the tenths place.
- b) Compare the tenths. The decimal with the larger number in the tenths place is greater number.
5.6 > 5.59. If tenths are equal move to the hundredths place.
- c) Compare the hundredths. The decimal with the larger number in the hundredths place is greatest. 6.37 > 6.368
- d) Keep going

Write < > or =

$0.31 \underline{\hspace{1cm}} 0.20$

$0.090 \underline{\hspace{1cm}} 0.09$

$0.33 \underline{\hspace{1cm}} 0.3$

$2.001 \underline{\hspace{1cm}} 2.01$

$0.03 \underline{\hspace{1cm}} 0.3$

$6.02 \underline{\hspace{1cm}} 602$

When adding or subtracting decimals, just make sure to line up the numbers. If you need to add some zeros as place holder you can.

$$\begin{array}{r} 24.523 \\ +5.754 \\ \hline \end{array}$$

$$\begin{array}{r} 45.98 \\ -9.65 \\ \hline \end{array}$$

$$\begin{array}{r} 765.7645 \\ -456.8751 \\ \hline \end{array}$$

Add the following numbers: line up the decimals $43.20 + .04 + 2.876 = \underline{\hspace{2cm}}$

Subtract the following numbers, add zeros if needed: $42.87 - 4.769 = \underline{\hspace{2cm}}$

Reading and writing decimals and Decimals as fractions

Practice writing decimals in words. 0.29 is twenty-nine hundredths : 4.7 is four and seven tenths; Notice that you do not reduce the fractions in decimals. All decimals have a denominator of 10,100, 1000, 10,000, etc.

Practice writing decimals as fractions and fractions as decimals. $\frac{23}{100}$ is 0.23, and 0.03 is $\frac{3}{100}$

Write the following decimals in digits:

Twenty-three hundredths _____ forty-one hundredths _____

Five and three tenths _____ Five hundred twenty-three thousandths _____

Write the following as fractions:

0.45 _____ 0.87 _____ 0.4 _____

0.654 _____ 0.8 _____ 0.76 _____

Write the following as decimals:

$\frac{29}{100}$ _____ $5\frac{5}{10}$ _____ $\frac{234}{1000}$ _____

$3\frac{23}{100}$ _____ $4\frac{9}{1000}$ _____ $245\frac{23}{100}$ _____

Add or subtract

$43.76+2.07+0.04=$ _____ $56.87-5.321=$ _____

Because the decimal point shows you the value of each digit in a decimal, you can add zeros after the last digit of a decimal without changing its value. You can add zeros before the decimal point. All the decimals below are equal.

$$0.5 = 0.50 = 00.50 = 00.500 = .5$$

No matter how many zeros are added after the decimal point, the decimal point shows that 4 is in the one's place

$$4 = 4.0 = 4.00 = 4.000$$

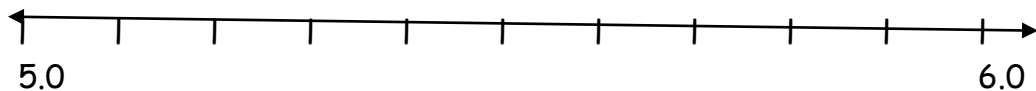
Learn to simplify decimals that have extra zeros

$$0.240 = .24$$

$$38.00 = 38$$

If you have 38.01 you cannot simplify that, ONLY if the zeros are to the right after the numbers

Reading decimals on a number line



Can you find on the line where 5.3 would be? How about 7.2?
 Since it is divided into 10 parts, each part is 1/10 of a mark. 5.1 then 5.2 then 5.3 etc

Comparing decimals

Remember when you compare numbers, you start with the greatest place value.

Compare 8.82 and 8.98

compare the ones place $8=8$

Compare the tenth's $.8 < .9$

Then $8.82 < 8.98$

$$7.77 \underline{\hspace{1cm}} 8.98$$

$$7.07 \underline{\hspace{1cm}} 7.77$$

$$4.99 \underline{\hspace{1cm}} 4.999$$

$$3.343 \underline{\hspace{1cm}} 3.043$$

$$58.765 \underline{\hspace{1cm}} 58.766$$

$$.878 \underline{\hspace{1cm}} .888$$

$$54.87 \underline{\hspace{1cm}} 5.487$$

$$84.88 \underline{\hspace{1cm}} 8.855$$

$$432.876 \underline{\hspace{1cm}} 876.9$$

Here are some problems. Write them out and line up the decimals. If you need to add some zeros.

$432.8 + 32.005 + 1.001 =$

$32.001 + 2.4 + 27.24 =$

$34.87 - 4.49 =$

$34.00 - 24.64 =$

To convert a decimal to a fraction, remove the decimal point and write the decimal over a power of ten. If the decimal goes to the tenths place, place it over ten; if the decimal goes to the thousandths place, place it over 1000. Reduce the fraction to lowest terms.

Examples: $0.45 = \frac{45}{100} = \frac{9}{20}$

$0.007 = \frac{7}{1000}$

Convert the following decimals into fractions.

$0.23 = \underline{\hspace{2cm}}$

$0.11 = \underline{\hspace{2cm}}$

$0.87 = \underline{\hspace{2cm}}$

$4.2 = \underline{\hspace{2cm}}$

$5.22 = \underline{\hspace{2cm}}$

$8.25 = \underline{\hspace{2cm}}$

$89.50 = \underline{\hspace{2cm}}$

$76.454 = \underline{\hspace{2cm}}$

$126.777 = \underline{\hspace{2cm}}$

Write out 36.125 in words: _____

Write two hundred thirty-seven and twenty-one hundredths in numerals

Use < > to indicate which decimal fraction is greater

3.147 _____ 3.205

3.06 _____ 3.059

Round 87.658 to the nearest whole number _____

Round 87.658 to the nearest tenth. _____

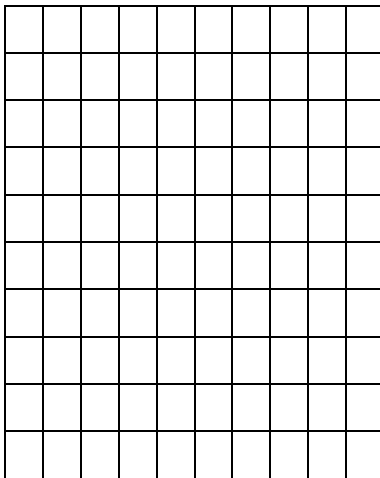
Round 87.658 to the nearest hundredth _____

Write 0.5 as a fraction in lowest terms _____

Write 0.67 as a fraction in lowest terms _____

Write 7.85 as a fraction in lowest terms _____

Fill in 0.37



8.276-0.228= _____ 465.52-104.1= _____

We multiplied money before, remember I said to count over how many decimal places there was in your numbers and that is how many you move over in your answer. The same is true for decimals.

$$\begin{array}{r} 4.3 \\ \times 1.2 \\ \hline 86 \\ 430 \\ \hline 5.16 \end{array}$$

Do the following problems and put the decimal point in the proper place.

$$\begin{array}{r} 2.21 \\ \times 1.5 \\ \hline \end{array}$$

$$\begin{array}{r} 2.5 \\ \times 2.1 \\ \hline \end{array}$$

$$\begin{array}{r} 3.1 \\ \times 3.1 \\ \hline \end{array}$$

$$\begin{array}{r} 6.6432 \\ \times 0.3 \\ \hline \end{array}$$

$$\begin{array}{r} 4368.3216 \\ \times \quad 0.2 \\ \hline \end{array}$$

$$\begin{array}{r} 0.87 \\ \times .04 \\ \hline \end{array}$$

Decimal division

You divide decimals by whole numbers the same way you divide whole numbers by whole numbers. You put the decimal point in the quotient above the decimal point in the dividend. Answers can go to the right 3,4 places unless noted. Add zeros to the dividend—ask your teacher

$$\begin{array}{r} 3.2 \\ 6 \overline{) 18.6} \end{array}$$

Practice

$$4 \overline{) 12.8}$$

$$5 \overline{) 20.55}$$

$$2 \overline{) 84.12}$$

$$3 \overline{) 12.24}$$

$$8 \overline{) .860}$$

$$6 \overline{) 4.56}$$

In decimal division, the divisor must be a whole number. The decimal point must be moved to the right until the divisor is a whole number, but you cannot make a change in the decimal divisor without making the same change to the dividend. If you moved the decimal one place to the right, you have multiplied the divisor and the dividend by 10. Place the decimal point in the quotient directly above the newly placed decimal point in the dividend. Think of the division problem $3.4 \div 1.2$ as a fraction $\frac{3.4}{1.2}$ multiply both the numerator and the denominator by 10 to make an equivalent fraction. The new (equivalent) division problem is $34 \div 12$

$$1.1 \overline{) 12} = 11 \overline{) 120}$$

$8.4 \div 2.1 = \underline{\hspace{2cm}}$

$1.872 \div 0.36 = \underline{\hspace{2cm}}$

$0.4712 \div 1.24 = \underline{\hspace{2cm}}$

$1.12 \div 8.1 = \underline{\hspace{2cm}}$

REVIEW

Write 207.426 in words

Write forty-seven and thirteen thousandths in numerals _____

Use < > to indicate which decimal fraction is greater 17.35 _____ 17.295

Round 12.769 to nearest whole number _____

Round 12.769 to nearest tenth _____

Round 12.769 to nearest hundredth _____

Write 0.36 as a fraction in lowest terms _____

Write 0.25 as a fraction in lowest terms _____

Write $\frac{3}{4}$ as a decimal number _____

Solve

$$36.2 + 27.325 = \underline{\hspace{2cm}}$$

$$87.36 - 84.95 = \underline{\hspace{2cm}}$$

$$4.6 \times 1.2 = \underline{\hspace{2cm}}$$

$$3.46 \times 10 = \underline{\hspace{2cm}}$$

$$11.55 \div 7 = \underline{\hspace{2cm}}$$

Positive and Negative numbers

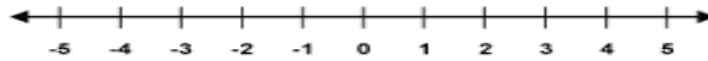
On a Celsius thermometer, zero degrees is the temperature at which water freezes. A common room temperature is +20 and -10 is the outdoor temperature of a very cold winter day.

The number +20 or 20 is a positive number. You read it as positive 20 or just 20.

The number -10 is a negative number. You read it as negative ten.

You can write positive numbers with or without a + sign. BUT you MUST always write a negative sign with a negative number.

We can show positive and negative numbers on a number line.



Numbers to the left of 0 on the number line are negative. Numbers on the right of 0 are positive. The number 0 is neither positive or negative.

Whole numbers are called integers. The positive integers are +1,+2,+3... the negative integers are -1,-2,-3.....

We use integers in everyday life. For instance the ten dollars you earn for doing a job is an example of a positive integer. When you spend the money on treats. That number is the negative amount you spend.

To mark the sea floor 300 meters below sea level, we can use the negative integer -300 to mark it. To mark a mountain 3,200 feet above sea level, we use +3200.

Comparing integers

An integer on the number line is greater than those to its left and less than those to its right.

$$-6 < -3 < 3$$

A positive integer is always greater than a negative integer. The farther to the left of a negative integer is from zero, the smaller its value.

Practice

$$-3 \underline{\hspace{1cm}} -2$$

$$4 \underline{\hspace{1cm}} -4$$

$$-6 \underline{\hspace{1cm}} -5$$

$$+3 \underline{\hspace{1cm}} +6$$

$$+2 \underline{\hspace{1cm}} -2$$

$$-8 \underline{\hspace{1cm}} -6$$

$$+10 \underline{\hspace{1cm}} 8$$

$$-5 \underline{\hspace{1cm}} -10$$

Underline the number you are rounding to help you:

Round the following to the nearest tens

328_____

543_____

Nearest hundred

432_____

655_____

Nearest thousand

34532_____

6543_____

Nearest ten thousand

43233_____ 56555_____

Nearest tenth

63.87_____ 8.057_____

Nearest hundredth

654.754_____ 876.5328_____

Nearest thousandths

0.6547_____ 34.7623_____

$$20 \overline{) 56740}$$

$$3 \overline{) 3.246}$$

Put these decimals in order from largest to smallest:

32.45 33.4 31.55 78.1 32.09

Put these in order from smallest to largest:

3.45 76.88 2.001 3.03 3.43 03.451

Add these decimals. Fill in the zeros:

$$32.32 + 43.001 + 54.01 =$$

Subtract

$$432.98 - 32.021 =$$

$$75.32 \times 2.1 =$$

Compare $<$ $>$ $=$ **start on the left and see which one is larger

$43.76 \underline{\hspace{1cm}} 43.99$

$323.876 \underline{\hspace{1cm}} 654.98$

$32.04 \underline{\hspace{1cm}} 32.40$

$678.890 \underline{\hspace{1cm}} 678.891$

$432.55 \underline{\hspace{1cm}} 432.55$

$432.8 \underline{\hspace{1cm}} 432.0$

$-43 \underline{\hspace{1cm}} 43$

$-876 \underline{\hspace{1cm}} -976$

$-876 \underline{\hspace{1cm}} -887$

What digit in 67.89 is in the hundredths place

Use digits to write the decimal number fifteen and twelve hundredths

$100 \div 4 =$

$200 \div 4 =$

$500 \div 5 =$

$32 \times 100 =$

Write the decimal 12.6 with three decimal places: 12.600 *remember you can add zeros to the end and it does not affect the amount 12.6 is the same as 12.600

Your turn:

Write the decimal 7.8 with four decimal places:

Which is bigger: 12.6 or 12.600

Fractions, decimals, and percents are three ways to name parts of a whole

Percent

The term percent means "per hundred". A percent compares a number to 100. For example 30 percent means 30 out of 100 or $\frac{30}{100}$. The symbol % stands for a percent. You write 21 out of 100 as 21%.

To write a percent as a decimal, remember that a percent is always in the hundredths. 35 percent is the same as 35 hundredths.

$$35\% = \frac{35}{100} = 0.35$$

To write a decimal as a percent, think of the decimal in hundredths. Then you can write it as a percent. 7 tenths (0.7) is the same as 70 hundredths (0.70), which is the same as 70%

$$.7 = 0.70 = \frac{70}{100} = 70\%$$

A quick way to write a decimal as a percent is to multiply the decimal by 100. This method works because percents are already in hundredths.

$$.40 = 40\%$$

Write the following as a percent:

$$.30 \underline{\hspace{2cm}}$$

$$.25 \underline{\hspace{2cm}}$$

$$.77 \underline{\hspace{2cm}}$$

$$.98 \underline{\hspace{2cm}}$$

$$.43 \underline{\hspace{2cm}}$$

$$.80 \underline{\hspace{2cm}}$$

What is the total cost of a \$7.98 book that has \$.49 tax?

In room 9 there are 6 rows of desks with 5 desks in each row. There are 4 books in each desk. How many books are in all the desks?

In 1.234 which digit is in the thousandths place? _____

Compare 12.2 _____ 12.20

A quick way to write percent as a decimal is to divide by 100.

40% = .40 remember how to move the decimal to the left. Since it is already at the end of the whole number you move it to the left two places for the 2 zeros.

Write the following as a decimal

60% _____ 3% _____ 22% _____

32% _____ 7% _____ 88% _____

Write these fractions as decimal:

$\frac{30}{100}$ _____ $\frac{45}{100}$ _____

Write these decimals as percents:

0.45 = _____ .75 = _____

How many minutes is $2\frac{1}{2}$ hours?

How much is $\frac{1}{2}$ of 12

$$452.23 \times 1000 =$$

$$436.23 \div 100 =$$

The last way is to change them to fractions.
We are going to memorize the common ones.

$$25\% = \frac{1}{4} \quad 50\% = \frac{1}{2} \quad 75\% = \frac{3}{4}$$

$$10\% = 1/10 \quad 20\% = 2/10 \quad 30\% = 3/10 \quad \text{etc.}$$

$$20\% = 1/5 \quad 40\% = 2/5 \quad 60\% = 3/5 \quad 80\% = 4/5$$

How you would solve these is to take the percentage number or the decimal number and put it over 100. Then reduce down. $25/100 = \frac{1}{4} = 25\%$

Let's fill in the blanks for the fractions:

$$20\% = \underline{\hspace{2cm}} \quad 25\% = \underline{\hspace{2cm}} \quad 30\% = \underline{\hspace{2cm}}$$

$$75\% = \underline{\hspace{2cm}} \quad 50\% = \underline{\hspace{2cm}} \quad 60\% = \underline{\hspace{2cm}}$$

$$10\% = \underline{\hspace{2cm}} \quad 70\% = \underline{\hspace{2cm}} \quad 90\% = \underline{\hspace{2cm}}$$

What is the area of a rectangle whose sides measure 3 cm and 4 cm?

What is the area of a rectangle whose sides measure 5 inch and 2 inch?

Lori's bedroom is 10 feet wide by 12 feet long, how much carpet will she need to cover the area of the floor?

What comes next in 4,5,8,9,12,13,_____,_____,_____

Name the decimal number 12.25 in words

Write a fraction that shows how many twelfths equal one half

Write the factors of 16

What digit in 436.2 is in the ones place

30m=6000 what is m

$\$80 - \$72.07 =$

$375 \times 548 =$

$\$40.53 \div 7 =$

Add $3.4 + 6.7 + 11.3 =$

$0.436 - 0.2 =$

$4.2 + 2.65 =$

$6.75 - 4.5 =$

Situation	Fraction	percent
30 marbles out of 100 marbles are red	$\frac{30}{100}$	30%
29 people out of 100 voted		
10 fish out of 100 fish are tropical		
7 cats out of 100 cats live indoors		
4 turtles out of 100 turtles lay eggs		
7 out of 10 puppies had spots		
17 out of 25 rules are blue		
18 out of 20 goldfish are orange		
The dress was reduced from \$5 to \$20		

To find the average of a set of numbers, you add up all the numbers and then divide by the number of addends. This is helpful in finding out averages of your tests. If I had 5 tests and I want to know what the average score was , I would add them all up and divide by 5.

Find the average of the following numbers:

5 3 6 8 3 2

Now if you want to find out what the **mean** of your numbers is---the middle number you line up your numbers and get the middle number.

The range is the difference between the highest and lowest number is

Find me the following:

2 1 3 6 12 7 9

Mean _____ Average _____ Range _____

Review from yesterday and solve:

1 1 2 3 4 3 5

Mean _____ Average _____ Range _____

Finding a percent of a number

There are 432 people in our church. 45% of them are boys. How many people are boys.

To solve this we find a percent of a number. What is 45% of 432?

Let me share something with you. The word "is" means = and the word "of" means multiply(x)

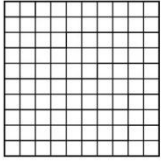
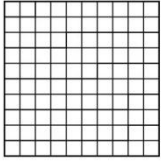
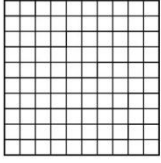
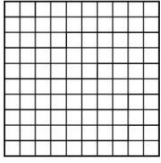
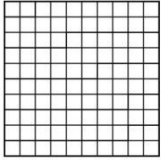
When we solve these, we changed the percentage to a decimal. 45% becomes .45.

Then let's rewrite the formula. $432 \times .45 =$ Now we can solve it.

Solve:

What is 32% of 21? _____

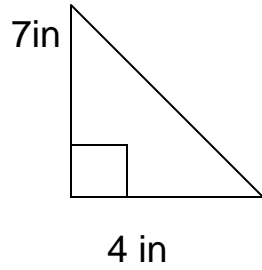
What is 11% of 15? _____

Draw	Fraction	Percent	decimal
			0.25
	$\frac{37}{100}$		
		18%	
	$\frac{7}{10}$		
		4%	

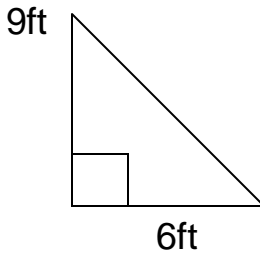
Area of a triangle

To find the area of a triangle, you need to multiply the base times the height and divide by 2

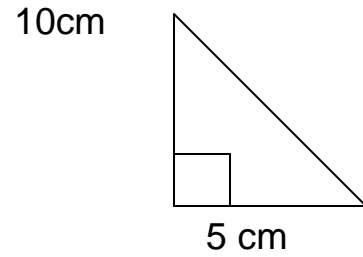
$$\text{Area of triangle} = (b \times h) \div 2$$



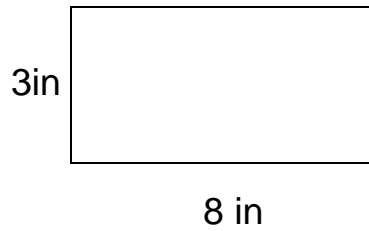
$$A = \underline{\hspace{2cm}} \text{ in}^2$$



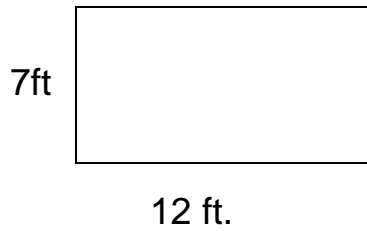
$$A = \underline{\hspace{2cm}}$$



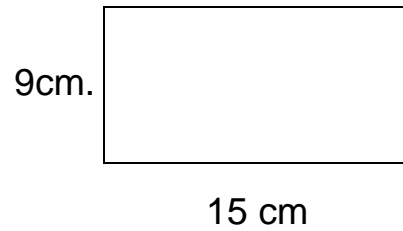
$$A = \underline{\hspace{2cm}}$$



$$A = \underline{\hspace{2cm}} \text{ in}^2$$

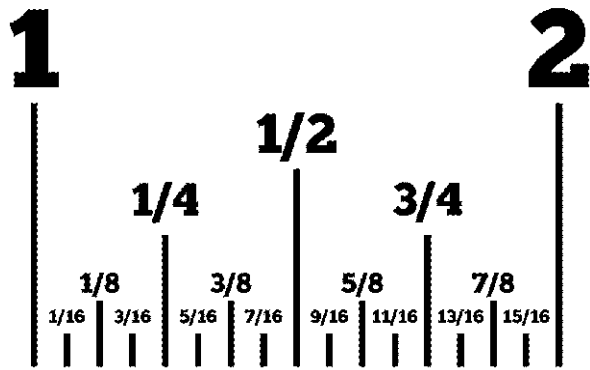


$$A = \underline{\hspace{2cm}}$$

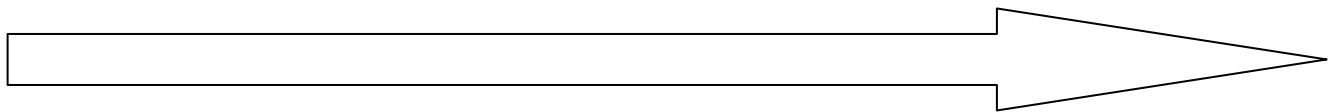


$$A = \underline{\hspace{2cm}}$$

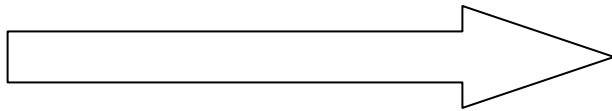
Measure in inches.



Here is the break down of an inch ruler. Measure the following to the exact sizes. Use the above chart to help you.



Measure in inches _____



Measure in inches _____

A garden that is 18 feet wide and 22 feet long needs to be fenced. Will 25 yards of fencing be enough to go around the entire garden? *change feet to yards. Explain _____

Adding and Subtracting Fractions

Step 1 – Find a common denominator (a number that both denominators will go into)

Step 2 – Raise each fraction to higher terms as needed

Step 3 – Add or subtract the numerators only as shown

Step 4 – Carry denominator over

Step 5 – Change the answer to lowest terms

Example #1: $\frac{1}{2} + \frac{7}{8} =$ Common denominator is 8 because both 2 and

8 will go into 8

$$\begin{array}{r} \frac{1}{2} \xrightarrow{4} \frac{4}{8} \\ + \frac{7}{8} \xrightarrow{1} \frac{7}{8} \\ \hline \end{array}$$

$$\frac{11}{8} \text{ which simplifies to } 1\frac{3}{8}$$

Example #2: $4\frac{3}{5} - \frac{1}{4} =$ Common denominator is 20 because both 4

and 5 will go into 20

$$\begin{array}{r} 4\frac{3}{5} \xrightarrow{4} 4\frac{12}{20} \\ - \frac{1}{4} \xrightarrow{5} \frac{5}{20} \\ \hline 4\frac{7}{20} \end{array}$$

Write in lowest terms. Do you remember how to reduce down? Think what is the largest number that will go into both of them. This is like making equivalent fractions, but going down instead of up☺

1. $\frac{5}{30}$ _____ 2. $\frac{21}{35}$ _____ 3. $\frac{18}{27}$ _____ 4. $\frac{12}{15}$ _____

Adding unlike fractions—reduce down to lowest terms

Before we begin, we need to get the denominators the same. We need to decide which is the smallest number that both of these will go into. For example on the first problem, what is the smallest number that both 10 and 5 will go into? The answer is 10. Then we do that backwards z of making equivalent fractions. The top one stays the same because it doesn't change and the bottom changes to 8. Then we can add normally.

$$\begin{array}{r} \frac{1}{10} \quad \frac{1}{5} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{3}{12} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{1}{2} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{4}{5} \quad \frac{8}{10} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{1}{6} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{1}{3} \\ \hline \end{array}$$

$$\frac{2}{3}$$

$$\frac{5}{12}$$

$$\frac{2}{5}$$

$$\begin{array}{r} \frac{1}{4} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{1}{6} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{9}{20} \\ \hline \end{array}$$

Write as a mixed number.

1. $\frac{10}{4}$ _____ 2. $\frac{19}{2}$ _____ 3. $\frac{25}{3}$ _____ 4. $\frac{9}{8}$ _____

5. $\frac{25}{16}$ _____ 6. $\frac{35}{4}$ _____ 7. $\frac{7}{3}$ _____ 8. $\frac{21}{8}$ _____

Subtracting unlike fractions—remember how we did this yesterday? Convert to a equivalent fraction with the lowest possible denominator. Then solve

$$\frac{3}{5}$$

$$- \frac{1}{4}$$

$$\frac{5}{6}$$

$$- \frac{1}{3}$$

$$\frac{9}{16}$$

$$- \frac{1}{4}$$

$$\frac{2}{3}$$

$$- \frac{1}{12}$$

$$\frac{18}{25}$$

$$- \frac{2}{5}$$

$$\frac{1}{7}$$

$$- \frac{1}{14}$$

A. Write as an improper fraction.

1. $1\frac{1}{8}$ _____ 2. $4\frac{1}{5}$ _____ 3. $1\frac{2}{3}$ _____ 4. $2\frac{3}{16}$ _____

5. $2\frac{5}{7}$ _____ 6. $2\frac{1}{16}$ _____ 7. $1\frac{5}{8}$ _____ 8. $3\frac{4}{5}$ _____

B. Add

1. $\frac{3}{8} + \frac{7}{8} =$

2. $\frac{2}{3} + \frac{3}{4} =$

3. $\frac{3}{32} + \frac{1}{8} =$

4. $\frac{3}{5} + \frac{5}{6} =$

9. $1\frac{5}{8} + \frac{13}{16} =$

10. $2\frac{2}{3} + \frac{4}{9} =$

More practice☺

$$\frac{7}{8} - \frac{1}{2} =$$

$$\frac{11}{16} - \frac{1}{4} =$$

$$5\frac{5}{6} - 2\frac{3}{9} =$$

Factors---remember when we did the factors of a number? The factors of 10 are: 1,2,5,10. Those are all the numbers that can divide into ten. Finding the GCF greatest common factor of numbers is helpful to reducing fractions.

Find the GCF of 6 and 9.

The Factors of 6: 1,2,3,6

the factors of 9: 1,3,9

The biggest factor that is common is 3

Find the GCF of:

6 and 10

12 and 15

When sixty-five and fourteen hundredths is subtracted from eighty and forty-eight hundredths, what is the difference?

Use the GCF of 20 and 30 to reduce $20/30$

If one side of a regular octagon is 12 inches long, what is the perimeter?

Can you hold your hand one foot apart? Hold them one yard apart?

One miles is how many feet?

One foot is how many inches?

How many feet in one yard?

Subtract and reduce $5 \frac{5}{6} - 2 \frac{1}{6} =$

Find the average of Eva's bowling score: 109,98, and 135

If the width of a rectangle is half its length, the length is 20mm, what is the perimeter?

What is eighty-seven dollars divided by 6 equal?

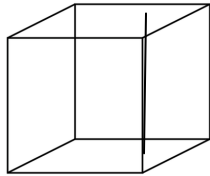
Write 19% as a fraction and then as a decimal

$6(20+3)$

$5(30+2)$

How do we find out how much will fill a container? We need to find the volume of an object. That sort of object needs to be 3d. Imagine a cube, how much could we fit inside of it? We figured that out by using this formula Volume= length x width x height

The height inside is 3



width 3 inches

Length 2 inches

To find the volume we take $3 \times 3 \times 2 = 18$ inches cubed or 18 in^3

Remember $V = l \times w \times h$

What is the volume of a cube with dimensions 4 ft, 2 ft, 3 ft= _____

The dimensions are 13 in length, 9 in. width, and 2 in height. What is volume _____

Remember $A = l \times w$ What is area _____

The dimensions are 8 ft in length, 4 ft in width, and 3 ft in width. What is the volume _____

What is the area _____

Write the following as a percent

.21 _____

.89 _____

32.39 _____

31.98 _____

Write the following as a decimal

75% _____

23% _____

125% _____

1/5 _____

$\frac{3}{4}$ _____

2/5 _____

$\frac{1}{4}$ _____

1/10 _____

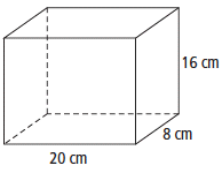
Write as a fraction

75% _____

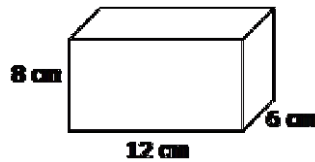
5% _____

20% _____

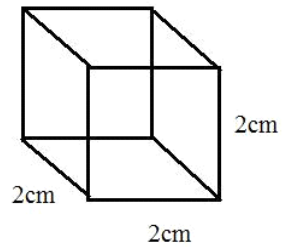
25% _____



V= _____ cm^3



V= _____



V= _____

Ratio

A ratio is a way of comparing the size of two numbers. If a family has 4 girls and 5 boys then the ratio of girls to boys is 4:5 or 4 to 5 or $\frac{4}{5}$.

There are 15 students in the preschool class. For every 7 kids there is one teacher. Which ratio shows the number of teachers to the number of students in the class?

- a) 2:7
- b) 7:15
- c) 2:22
- d) 1:7

A coin is flipped to decide who will go first in the game. What is the ratio that a head will be flipped?

- a) 1:2
- b) 2:1
- c) 2:2
- d) 2:3

Express this ratio 5:10

- a) 10 is half of 5
- b) 5 is half of 10

Five has what ratio of 15

- a) One third
- b) One half
- c) Two thirds
- d) Three fourths

How many cats are there if there are seven cats to twenty eight dogs?

- a) One third
- b) One fourth
- c) One fifth
- d) One sixth

The baseball team won 2 games. They played 17 games total. What ratio shows how many games they lost?

- a) 2:17
- b) 15:17
- c) 17:2
- d) 17:15

Multiplying Simple Fractions

Step 1 – Multiply the numerators

Step 2 – Multiply the denominators

Step 3 – Reduce the answer to lowest terms

Example: $\frac{1}{7} \times \frac{4}{6} = \frac{4}{42}$ which reduces to $\frac{2}{21}$

$$\frac{1}{2} \times \frac{1}{3} =$$

$$\frac{3}{5} \times \frac{1}{2} =$$

$$\frac{2}{3} \times \frac{1}{5} =$$

When asked what number is $\frac{2}{3}$ of 4?

We know that $\frac{2}{3}$ of 4 is greater than 2 because $\frac{1}{2}$ of 4 is 2, and $\frac{2}{3}$ is greater than $\frac{1}{2}$. We also know that $\frac{2}{3}$ of 3 is less than 4. We multiply to find the answer.

$$\frac{2}{3} \times \frac{4}{1} = \frac{8}{3} = 2 \frac{2}{3}$$

We know that the whole number 4, we put over 1 and that means the same as 4.
(My pie is cut into 1 whole piece and I have 4 of them)

Multiply across and then reduce down. Make the improper fraction a mixed fraction.

Your turn: What number is $\frac{1}{5}$ of 4?

What number is $\frac{1}{6}$ of 5?

What number is $\frac{2}{3}$ of 5?

$$301.4 - 143.5 =$$

$$475 \times 890 =$$

$$3480 \div 40 =$$

$$\$42.36 \div 6 =$$

What is the volume of a cube with sides: 4cm, 3cm, and 2cm?

$$5(30+4) =$$

$$5(34) =$$

How many dimes equal \$1? and \$5?

Reciprocal

If we switch the numerator and denominator in a fraction, the new fraction is the reciprocal of the first fraction. The reciprocal has the same terms, but their positions are reversed. When we switch the position of the numerator and the denominator, we invert the fraction.

The reciprocal of $\frac{2}{3}$ is $\frac{3}{2}$

Whole numbers have reciprocals. Remember that a whole number may be written as a fraction over 1. So the whole number 2 may be written as $\frac{2}{1}$. The reciprocal is $\frac{1}{2}$

Your turn: What is the reciprocal of $\frac{1}{3}$ Of 3

A quarter is what fraction of a dollar? How many quarters equal \$1?

Which of the following means "How many 25s are there in 500?"

$25 \div 500$ $500 \div 25$ 25×500 500×25

$(\$20 - \$4.72) \div 8$ $160 \times \$1.42$

Reduce $\frac{15}{25}$ 27×-567

Draw two circles. Shade $\frac{1}{2}$ of one circle and $\frac{2}{3}$ of the other

How much is $\frac{2}{3}$ of one dozen

Use digits to write number: ninety-three million, eight hundred fourteen thousand, two hundred

$m - 1.4 = 3.75$ what is m

Reciprocals help us solve division problems. When given the problem

$$\frac{1}{2} \div \frac{2}{3}$$

We don't actually ever divide fractions. What we do is that we reciprocate the second fraction and then multiply them.

$$\frac{1}{2} \times \frac{3}{2} = \frac{3}{4}$$

You try:

$$2 \div \frac{2}{3} =$$

$$\frac{1}{2} \div \frac{1}{3} =$$

$$\frac{3}{4} \div \frac{2}{3} =$$

$$10 \div \frac{5}{6}$$

A quart is what fraction of a gallon

How many quarts are in one gallon

How many quarts are in four gallons

$$43.15 + 8.69 + 7.2 + 5.0 =$$

List the factors of 32

Logan lives 1.2 miles from school. How far does he travel going from home to school and back home?

$$\$7.20 \div 20 =$$

$$750 \times 608 =$$

Decimal numbers adding zero. For some subtraction problems, we need to add decimal places to perform subtraction. If we subtract 0.23 from 0.4, we find there is an empty space

$$\begin{array}{r} 0.4 \\ -0.23 \\ \hline \end{array}$$

← empty place

We fill the empty place with a zero then we subtract

$$\begin{array}{r} 0.40 \\ -0.23 \\ \hline \end{array}$$

Your turn: Subtract the following

$0.3 - 0.15$

$0.3 - 0.25$

$4.2 - 0.42$

$3.5 - 0.35$

$2.5 - 1$

$1 - 0.25$

Remember volume?==to find the volume multiply the length times the width times the height

What is the volume of the solid 4 inches, 2 inches, and 3 inches high?

What is the volume of a cube 3 cm for all three measurements

What digit in 1.234 is the same place as the 6 in 56.78?

$3 - 2.35 =$

$16x = 2112$

The \$30 skirt is on sale for 10% off today. What is 10% of \$30?

How many hours is 2 days

Rounding to the nearest whole number.

Round 7.6 to the nearest whole number. The decimal 7.6 is greater than 7 but is less than 8. Halfway from 7 to 8 is 7.5. Since 7.6 is more than halfway, we round up to the whole number 8.

Your turn:

Round each money amount to the nearest dollar:

\$6.24

\$15.06

\$118.59

Round each decimal number to the nearest whole number:

4.75

12.3

96.41

89.89

In Evan's class there are twice as many boys as there are girls. There are 18 boys in the class.

Remember multiplying by 10,100,100? When we do it with decimal numbers, we just move the decimal over the number of zeros.

If you had $3.4 \times 10 =$ We have one zero, so we move the decimal to the right one time and your answer is 34

If we had 2.34×100 , we have two zeros, so we move the decimal point over to the right two times. Your answer is 234

Your turn:

Multiply $1.234 \times 100 =$

$1.234 \times 1000 =$

$0.345 \times 10 =$

$5.67 \times 100 =$

$7/11 + 8/11 =$

What is 3 and $7/12$ plus $1/2 =$

$3 \div 3/4 =$

$2/3 \div 1/4 =$

At one time, the Arctic Ocean was almost completely covered by a polar ice cap. This measured to 10 feet thick. About how many inches was the polar ice cap?

Borrowing in subtraction of fraction Subtract $2 \frac{1}{8} - 1 \frac{1}{4}$ Let your teacher walk you through this.

$$\begin{array}{r} \text{Example :} \quad 2 \frac{1}{8} = 2 \frac{1}{8} = \cancel{2} \frac{1}{8} + \frac{8}{8} = 1 \frac{9}{8} \\ - 1 \frac{1}{4} = 1 \frac{2}{8} = 1 \frac{2}{8} = 1 \frac{2}{8} \\ \hline \qquad \qquad \qquad \qquad \qquad \qquad \frac{7}{8} \quad ** \end{array}$$

****Note** – In this problem you must borrow from the whole number to adjust your fraction so that you can subtract. However, you may do this problem another way. Simply change the mixed number to improper form before finding the common denominator to prevent having to borrow.

$$\begin{array}{r} 2 \frac{1}{8} = \frac{17}{8} = \frac{17}{8} \\ - 1 \frac{1}{4} = \frac{5}{4} = \frac{10}{8} \\ \hline \qquad \qquad \qquad \qquad \qquad \qquad \frac{7}{8} \end{array}$$

Your turn: * borrow

$$\begin{array}{r} 3 \frac{1}{4} \\ - 1 \frac{3}{8} \\ \hline \end{array}$$

The space shuttle makes one orbit of the earth in about 90 minutes. About how long does it take the space shuttle to make 3 orbits?

The board game is regularly priced at \$20. It is on sale for 10% off. What is the sale price?

Dividing by a decimal number

Dividing a decimal number by a whole number is like dividing money by a whole number. The decimal point in the quotient is directly above the decimal point inside the division box.

$$\begin{array}{r} \$ 0.04 \\ 3 \overline{) \$ 0.12} \end{array}$$

make sure to fill empty places with zeros
and place the decimal point directly up in the

answer

$$4 \overline{) 0.52}$$

$$6 \overline{) 3.6}$$

$$0.85 \div 5$$

$$0.16 \div 4$$

$$0.0025 \div 5$$

Write the following in digits and symbols:
The sum of one sixth and one third is one half

If each side of a regular octagon is 6 inches long, than the perimeter of the octagon is how many feet?

What is the largest four digit odd number that uses the digits 7,8,9, and 0

How much greater is 3.42 than 1.232

$$0.36 \times 0.04$$

$$1.35 \times 90$$

$$4 \times \frac{3}{2}$$

$$\frac{3}{4} \div \frac{1}{4}$$

Dividing decimals by 10,100,100

Remember when we multiplied any number or decimal by 10,100,100? We simply move the decimal to the right the number of zeros

$34 \times 100 = 3400$ (34 and two zeros)

$3.4 \times 100 = 340$ (move decimals to right two times)

When we divide by 10,100,1000 we move the decimal to the LEFT the number of zeros

3.5 divided by 100= you move the decimal two places to the left. You will have to add zeros as placeholders.

0.035 is your answer

Your turn:

$0.6 \div 4$

$0.1 \div 4$

$0.6 \div 8$

$0.3 \div 4$

$2.5 \div 10$

$2.5 \div 100$

$32.4 \div 100$

$32.4 \div 1000$

Draw me two parallel line segments

How many 12 cent pencils can you buy with one dollar

Write the fraction that equals 4%

5%

$1000 \div 50$

$0.5 \div 100$

Multiplying Mixed Numbers

Step 1 – Convert the mixed numbers to improper fractions first

Step 2 – Multiply the numerators

Step 3 – Multiply the denominators

Step 4 – Reduce the answer to lowest terms

Example: $2\frac{1}{3} \times 1\frac{1}{2} = \frac{7}{3} \times \frac{3}{2} = \frac{21}{6}$ which then reduces to $3\frac{1}{2}$

The best way to multiply fraction is to reduce down before you multiply. Then multiply across

$$\begin{array}{r} \cancel{9}^3 \\ \cancel{12} \\ 2 \end{array} \times \begin{array}{r} \cancel{6}^1 \\ \cancel{3} \\ 1 \end{array} = \begin{array}{r} \underline{3} \\ \underline{2} \\ 1 \underline{1} \\ 2 \end{array}$$

The 6 and the 12 can be reduced by 6. So you cross of the 6 and make it 1. The 12 becomes 2. 9 and 3 can be divided by 3, so you cross off and make it 3 and 1. You can't reduce anymore so you just multiply across. You get 3/2 and since that is an improper fraction, you reduce it down to lowest terms. When you reduce, it can be either number up and down, not reducing side by side. Let's try doing some on your own. Remember reduce FIRST and then multiply across.

$$\frac{3}{4} \times \frac{12}{9} = \underline{\hspace{2cm}} \quad \frac{10}{5} \times \frac{9}{3} = \underline{\hspace{2cm}} \quad \frac{4}{9} \times \frac{18}{20} = \underline{\hspace{2cm}}$$

$$\frac{3}{8} \times \frac{8}{4} = \underline{\hspace{2cm}} \quad \frac{8}{20} \times \frac{30}{8} = \underline{\hspace{2cm}} \quad \frac{5}{10} \times \frac{2}{3} = \underline{\hspace{2cm}}$$

What is the area of a bedroom that is 3 meters wide and 4.5 meters long
What is the perimeter

What is the volume of a drawer that is 2ft by 1.5ft by 0.5ft

Four-hour admission to an outdoor water park costs \$12.50 per person. Gary and three friends plan to visit the park. They have a discount coupon for \$2 off each person's admission. What is the total cost of the tickets

Dividing of fractions

When you are to divide fractions, you actually do the reciprocal of the second number and then multiply as usual.

Reciprocal means to flip the fraction around.

$$\frac{1}{2} \div \frac{6}{3} = \text{Rewrite } \frac{1}{2} \times \frac{3}{6} = \text{Then reduce } \frac{1}{2} \times \frac{\cancel{3}}{\cancel{6}} = \frac{1}{4}$$

$$\frac{3}{4} \div \frac{9}{12} = \underline{\hspace{2cm}} \quad \frac{10}{5} \div \frac{9}{3} = \underline{\hspace{2cm}} \quad \frac{4}{9} \div \frac{20}{18} = \underline{\hspace{2cm}}$$

$$\frac{3}{8} \div \frac{4}{8} = \underline{\hspace{2cm}} \quad \frac{8}{20} \div \frac{8}{30} = \underline{\hspace{2cm}} \quad \frac{5}{10} \div \frac{3}{2} = \underline{\hspace{2cm}}$$

Write the Roman Numerals for 1-12

What is the cost of 12 notebooks that are \$1.95 each

Jadyn was given a \$100 gift certificate. If she could buy 6 books for \$25, how many books could she buy with the \$100 gift certificate

Write 5.375 in words

What is 50% of \$40

I need $2\frac{1}{2}$ cups of milk for the recipe. If I am doubling it, how much milk do I need?

When you have a whole number by itself and you need to multiple or divide, put it over 1.

$$7 \times \frac{1}{2} = \frac{7}{1} \times \frac{1}{2} =$$

Solve:

$$7 \times \frac{1}{11} = \underline{\hspace{2cm}}$$

$$\frac{1}{5} \times 4 = \underline{\hspace{2cm}} \quad \frac{1}{9} \times \frac{1}{8} = \underline{\hspace{2cm}}$$

$$12 \times \frac{1}{4} = \underline{\hspace{2cm}}$$

$$\frac{1}{100} \times \frac{1}{100} = \underline{\hspace{2cm}} \quad \frac{2}{3} \times \frac{6}{8} = \underline{\hspace{2cm}}$$

$$\frac{8}{20} \div \frac{8}{30} = \underline{\hspace{2cm}}$$

$$\frac{5}{10} \div \frac{3}{2} = \underline{\hspace{2cm}}$$

REVIEW

Compare using < > =

$$\frac{3}{5} \underline{\hspace{1cm}} \frac{4}{5}$$

$$\frac{7}{8} \underline{\hspace{1cm}} 1$$

$$\frac{4}{16} \underline{\hspace{1cm}} \frac{1}{4}$$

$$\frac{1}{9} + \frac{5}{9} = \underline{\hspace{1cm}}$$

$$\frac{2}{5} + \frac{1}{10} = \underline{\hspace{1cm}}$$

$$\frac{3}{8} + \frac{1}{6} = \underline{\hspace{1cm}}$$

$$3\frac{1}{4} + 2\frac{1}{3} = \underline{\hspace{2cm}}$$

$$11\frac{7}{8} + 4\frac{5}{12} = \underline{\hspace{2cm}}$$

Change $\frac{17}{4}$ into a mixed number: $\underline{\hspace{2cm}}$

Change $3\frac{2}{5}$ into an improper fraction: $\underline{\hspace{2cm}}$

$$\frac{3}{4} \times \frac{1}{2} = \underline{\hspace{2cm}} \qquad \frac{11}{12} \times \frac{4}{5} = \underline{\hspace{2cm}}$$

$$\frac{2}{3} \div \frac{1}{3} = \underline{\hspace{2cm}} \qquad \frac{1}{2} \div \frac{1}{4} = \underline{\hspace{2cm}}$$

FINAL


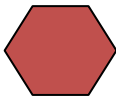
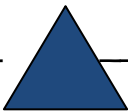
Write out 2,654,782.06 in words _____

Solve $65 + \underline{\hspace{2cm}} = 83$ $13,692 + 78 + 312 = a$ $a = \underline{\hspace{2cm}}$ $37 \times 30 = y$ $y = \underline{\hspace{2cm}}$

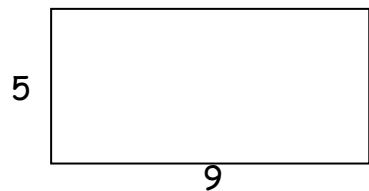
$$\begin{array}{r} 765,311 \\ -21,400 \\ \hline \end{array}$$

$$33 \overline{) 5,827}$$

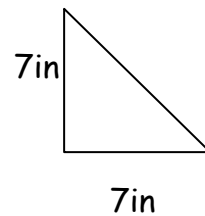
find the average of these numbers 7, 12, 29, 15, 18, 15 _____

identify each polygon  _____  _____  _____

find the perimeter and area.

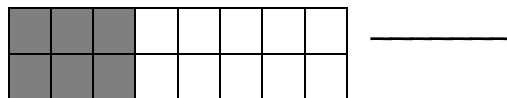


Perimeter _____



area _____

Write this fraction in lowest terms.



Use < > to indicate which fraction is greater $\frac{7}{9}$ $\frac{4}{9}$

$$\frac{3}{11} + \frac{5}{11} = \underline{\hspace{2cm}}$$

$$\frac{3}{4} + \frac{1}{8} = \underline{\hspace{2cm}}$$

$$3\frac{1}{3} + 2\frac{1}{2} = \underline{\hspace{2cm}}$$

$$12\frac{5}{6} - 1\frac{5}{6} = \underline{\hspace{2cm}}$$

$$\frac{7}{8} \times \frac{1}{4} = \underline{\hspace{2cm}}$$

$$\frac{4}{5} \div \frac{2}{3} = \underline{\hspace{2cm}}$$

Change $\frac{18}{5}$ to a mixed number _____ write 3.4 as a mixed number in lowest terms _____

$$37.3 + 265.25 = \underline{\hspace{2cm}}$$

$$4.8 \times 1.3 = \underline{\hspace{2cm}}$$

$$3.654 - 1.7 = \underline{\hspace{2cm}}$$

$$37.75 \div 100 = \underline{\hspace{2cm}}$$

Write 35% as a fraction _____

$$17.2 \div 8 = \underline{\hspace{2cm}}$$