$5+6=$
$6+5=$
$8+0=$
$4+8+6=$ $4+5+6=$

Jim ran 5 laps in the morning. He ran 8 laps in the afternoon. How many laps did he run in all?

Find the missing addend:
$7+n=10$
$a+8=12$

| 5 | 8 | 6 | 9 |
| ---: | ---: | ---: | ---: |
| 5 | 0 | 5 | 9 |
| +5 | $\underline{+7}$ | $\underline{+4}$ | $\underline{+9}$ |

$3+2+5+4+6=$

Find the missing addend:
$8+a+2=17 \quad b+6+5=12$
$1+b+4=8 \quad c+4+5=11$

My rabbit ate 5 carrots in the morning, 6 carrots in the afternoon. How many carrots did he eat in all?

I ate 10 jelly beans in the afternoon and 5 more at night. How many did I eat altogether?

Which number is ____ in the following sentence?

$$
6+\ldots=10
$$

a. 4
b. 6
c. 10
d. 16

Skip counting: Count by 10s

| 10 | 20 | 30 |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Figure out what the rule is for this counting series:

| 30 | 27 | 24 | 21 |  | 15 |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

How many DIGITS are in 64,000 ?

What is the last digit of 2001?

How many digits are in each number:
18
5379
8,344,087 $\qquad$

What is the last digit of each number:
$\qquad$ 7655
7,987,098 $\qquad$

Brooklyn has 5 dollars, Mayama has 6 dollars, and Blessing has 7 dollars. Altogether, how much money do the three girls have?

Find the missing addend:
$5+m+4=12$
$8+2+w=16$

| Place value |  |  |
| :--- | :--- | :--- |
| hundreds | tens | ones |
| 5 | 2 | 3 |

This means that I have 5-100's and 2-10's and 3-1's
Use some toothpicks to demonstrate this-teacher
How many hundreds are in the number 432?
How many tens are in the number 432 ?
How many ones are in the number 321?
The digit 6 is in the tenths place in which number?
$362 \quad 632 \quad 756$
Count by 5's

| 5 | 10 |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

How many digits are in each number 4,321,643 $\qquad$ 54 $\qquad$ 87,986,999 $\qquad$

If I had 4 hundreds, 3 tens, and 2 ones. What number would I have?

Find the missing addend:
$2+5+3+2+3+1+n=20$

Ordinal numbers

| $1^{\text {st }}$ first | $2^{\text {nd }}$ second | $3^{\text {rd }}$ third | $4^{\text {th }}$ fourth |
| :--- | :--- | :--- | :--- |
| $5^{\text {th }}$ fifth | $6^{\text {th }}$ sixth | $7^{\text {th }}$ seventh | $8^{\text {th }}$ eighth |
| $9^{\text {th }}$ ninth | $10^{\text {th }}$ tenth | $20^{\text {th }}$ twentieth | $21^{\text {st }}$ twenty-first |

Andy is $13^{\text {th }}$ in line. Michael is $3^{\text {rd }}$ in line. How many students are in between them?

At the store, there were 5 people in the first line, 6 people in the second line, and 4 people in the third line. Altogether, how many people were in the three lines?

Find the missing addend:
$2+6+x=15$
$3+z+5=15$
$r+5=11$

Fill in the sequence:

| 12 | 15 | 18 |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

If I have 4 hundred dollar bills, 2-ten dollar bills, and 5 one dollar bills. How much do I have?

The digit 8 is in what place in 845 ?

A year is typically 365 days long. A leap year is 366 . The extra day in a leap year is added to February.

| month | order | days |
| :--- | :--- | :--- |
| January | first | 31 |
| February | second | 28 or 29 |
| march | third | 31 |
| April | fourth | 30 |
| May | fifth | 31 |
| June | sixth | 30 |
| July | seventh | 31 |
| August | eighth | 31 |
| September | ninth | 30 |
| October | tenth | 31 |
| November | eleventh | 30 |
| December | twelfth | 31 |
| Whan |  |  |

When writing dates, we can use numbers to represent month, day, year. If Brooklyn was born on the sixth day of the twelfth month, then we could write her birthday:

12/06/2006
Jenny wrote her birth date as 7/8/94. What month was she born in? $\qquad$ In what year was she born? $\qquad$

Mrs. Maryon's drivers license was set to expire on 5/29/06. Write the date out with words and digits. For example: January 5, 2005

In month/day/year form, write the date that Independence Day will next be celebrated? $\qquad$
Write your birth day in Month/day/year form: $\qquad$

Remember when we add, we combine two groups into one group.
$4+3=6$
When we subtract, we separate one group into two groups. To take away two from six, we subtract.
$6-2=4$
When we subtract one number from another number, the answer is the difference. If we subtract two from six, the difference is four.
$10-8=$ $\qquad$ 7-5= $\qquad$ $4-3=$ $\qquad$ $8-8=$

How many days are in the tenth month of the year? $\qquad$
What digit is in the tenths place in 432 ? $\qquad$
Find the missing addend: $2+m+3=14$
Fill in the missing numbers

| 16 | 18 | 20 |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |


| 25 | 30 | 35 |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |


| 56 | 66 | 76 |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |


| 68 | 70 | 72 |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |


| 21 | 18 | 15 |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |


| 1 | 3 | 5 |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

To write the names of whole numbers through 999 (nine hundred ninety-nine) we need to know the following words and how to put them together:

| 0 | zero | 10 | ten | 20 | twenty |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | one | 11 | eleven | 30 | thirty |
| 2 | two | 12 | twelve | 40 | forty |
| 3 | three | 13 | thirteen | 50 | fifty |
| 4 | four | 14 | fourteen | 60 | sixty |
| 5 | five | 15 | fifteen | 70 | seventy |
| 6 | six | 16 | sixteen | 80 | eighty |
| 7 | seven | 17 | seventeen | 90 | ninety |
| 8 | eight | 18 | eighteen | 100 | one hundred |
| 9 | nine | 19 | nineteen |  |  |

*The names of two-digit numbers that are greater than 20 and do not end with a number 0 , are written with a hypen.

For example: Use words to write number 44.
Forty-four
To write a three digit number, do not use the word "and"
313= three hundred thirteen 705= seven hundred five
Use words to write each number:
0 $\qquad$ 81

99 $\qquad$ 909 $\qquad$

444 $\qquad$ 515 $\qquad$
Use digits to write five hundred twenty-four $\qquad$

Two digit addition: Add $\$ 32+\$ 7=$ (line up the numbers in vertical form first and then do the right side)

$$
\begin{array}{r}
\$ 32 \\
+\quad 7 \\
\hline \$ 39
\end{array}
$$

Your turn:
Add—rewrite them vertically
$\$ 53+\$ 6=$
\$27+\$51=
\$32+\$42=
\$32+\$7=

Use digits to write each number:
Three hundred forty-three
Three hundred seven $\qquad$

Use words to write the number 592

Sam has $\$ 23$ and Becky has $\$ 42$. Together, they have how much money?

Kim was born on the fifth day of August in 1999. Write her birthday in month/day/year form.

Add $5+8+3+2+4+1=$

Regrouping addition. Add $39+14=$
1
39
$+14$
53
do the ones column first and add $9+4=13$. You have to "regroup" and put the 1 on top of the tens place and the three in the ones place. Then add the tens column to get 5

Rewrite in column form and add the following:
$68+24$ $46+26$
$42+18$
56+78

Use words to write 941

Use digits to write six hundred thirteen

What is the name for the answer when we add?
What is the name for the answer when we subtract?
Which month is two months after the twelfth month?
What digit is in the hundreds place in 832 ?

The numbers we say when we count by 2 are even. Every other number ends with either $2,4,6,8$, or 0 .
$2,4,6,8,10,12,14,16,18,20,22,24,26$
Which of these numbers is an even number?
463
212
677
If a whole number is not an even number then it is an odd number. Odd numbers are all the rest numbers.
$1,3,5,7,9,11,13,15,17,19,21$
What number is odd:
$323 \quad 678 \quad 870$

Use the digits 2,7, and 6 to write two three-digit odd numbers.

The same number of boys and girls were in the classroom. Which of these numbers could be the total number of students in the classroom?
$25 \quad 26 \quad 27$
Circle the even numbers
43
76
88
90
77
11

Use digits to write five hundred forty-two
Use words to write 903

Problem solving with words.
Sam had 8 balls. Then Tim gave him some more. Same now has 17 balls. How many balls did Tim give him? To solve this you will need to subtract what he had from what he has.
$8+$ $\qquad$ $=17$

The opposite of addition is subtraction --answer is 9
Your turn:
Jim had some pies. Then Frank gave his 5 more pies. Now he has 12 pies. How many pies did Jim have in the beginning?

Kim saw 4 horses at the fair. Then she saw 14 horses on the farm. How many did she see in all?

Tabitha read 6 pages before lunch. After lunch she read some more. IF Tabitha read 13 pages in all, how many pages did she read after lunch?

Use digits to write the number six hundred forty-two

The books were put into two stacks so that an equal number of books was in each stack. Was the total number of books in each stack an odd or even number?

| 12 | 9 | 6 |  |  | $X X X$ | $x x x x$ | $x x x$ | $x x x$ | $x x x$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $93+39=$ |  |  |  |  |  |  |  |  |  |

Find the missing number: $b-5=7$. We know that addition is the opposite of subtraction, so if we add $5+7$, we will get our answer of 12 .

Your turn:
$14-n=6$
$n-5=2$
$9-n=2$
$7+2+n=\quad 4+a+2=15$

At first thirty-five butterflies were flying about. Later twenty-seven more butterflies began to fly about In all, how many butterflies were flying about?
$67+27=$
$65+21=$
$88+13=$

How many cents are in nine nickels? Count by 5s

Write the largest three-digit number that has a 6 in the ones place and a 4 in the tens place.

Adding three digit numbers and regrouping.
I 186
456
$+374$
830
Do the ones column first, then regroup, then do the tens column, then regroup. Finally do the hundreds column and write down the answer. Your turn:

\$498
$+\mathbf{\$ 1 9 4}$
125
$+675$

Five of the twelve children at the party were girls. How many boys were at the party?

Use words to write the number 913

Use digits to write the number seven hundred forty-three

Add \$475 + \$232= 743+367=

432
-121
311
Start in the ones column and subtract and move to the tens and then the hundreds.

Your turn: write vertically
\$485-\$242= \$56-\$33
$24+q=65 *$ remember addition is opposite of subtraction
$Y+45=99$

Use the digits 1,2,3 once each and write an even number less than 200.

What is the total number of days in the first two months of a common year?

## Subtraction with regrouping

Find the difference of 56-29
4
$\$ 6$
$-29$
27

We need to start in the ones column and understand that we can't take 9 from 6 . So we have to borrow from the neighbor (5). We borrow 1 which is really 10 -because going from one place value to another is by tens. Then we add it to our number and subtract. Then move to the next column and subtract.

Your turn: rewrite vertically and solve

Use the digits 3,6,7 once and write an even number less than 400.

The smallest two-digit odd number is 11 . What is the smallest two-digit even number?

Subtract 245 from 375.

## Expanded form

The number 365 means " 3 hundreds and 6 tens and 5 ones" We can write this as $300+60+5$ This is called expanded form.

Write 274 in expanded form: 200+70+4
Your turn:
Write 407 in expanded form ** there are no tens so don't write that

Write 86 in expanded form

Write 325 in expanded form

Write 507 in expanded form

Solve:
$36-p=21$
$47-b=24$
$m-22=16$

Regrouping with more than two numbers
Add $227+88+6$ Just line them up vertically and add. Regroup if necessary

12
227
88
$\begin{array}{r}6 \\ +\quad 6 \\ \hline\end{array}$
321
Line up the following vertically and add:
$47+29+46+95=$
$534+76+9=$
$213+42+3=$

$$
103+398+12+9=
$$

Four hundred seven tulips were in front. Three hundred sixty-two tulips were in back. How many tulips were there in all?

Write 813 in expanded form.

## Time

How many hours equal a whole day?
How many minutes equal an hour?
Draw the hands on the clock to say the following times:
4:10



Add \$468+\$293=
\$187+\$687=
44-27=
62-43=
23-18=

The radio costs about $\$ 70$. The radio costs $\$ 68.47$
The first sentence uses the rounded number. Rounded numbers usually end with zero. We often round numbers in place of exact numbers because they are easy to understand and work with.

To round an exact number to the nearest ten, we choose the closest number that ends in zero.
Draw a number line to help you understand how to round 67


67 is between 60 and 70 . Since 67 is closer to 70 , we say it is about 70 .
*A key is to look at the halfway mark, if your ending number is 5 or more, you go up to the next even number, if it is less you go down.

Round 82 to the nearest ten. Rounding to the nearest ten means rounding to a number you would count by tens (10,20,30,40,50,etc)

Look at the " 2 " is it 5 or more? Then you go down to 80 instead of up to 90 .

When you round dollars and cents to the nearest dollar, we look at the cents, you look at if it is 50 cents or more, then you round up. If not you round down to nearest dollar.
$\$ 6.49$ rounded to nearest dollar is $\$ 6$
$\$ 12.95$ rounded to nearest dollar is $\$ 13$
Your turn:
Round each number to nearest ten. Draw a number line if you need to.
$78 \quad 43 \quad 61 \begin{array}{lll} & 45\end{array}$

Round each money to nearest dollar:
\$14.29
\$8.95
\$21.45
\$29.89

Perimeter. The distance around an object is its perimeter. All you do is add up all the sides.
If the rectangles sides are 4 inch by 2 inch, the perimeter is 12 inch. Add up all the sides to get your answer.

Measure this rectangle in centimeters


What is the length $\qquad$ Width $\qquad$ perimeter $\qquad$

Tammy put forty jacks in a pile. After Sarah added up all her jacks there were seventy-two jacks in the pile. How many jacks did Sarah put in?

Write seven hundred fifty-three in expanded form

What comes next:

| 28 | 35 | 42 |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |

Part of a whole number can be named with a fraction. A fraction is written with two numbers. The bottom number of a fraction is called the denominator. The denominator tells how many equal parts are in the whole The top number is called the numerator. The numerator tells how many of the parts are being counted.


1
One whole

1/4

one -half
one -fourth three-fourths


What part of the shape is shaded

What part of the shape is shaded


A quarter is what fraction of a dollar ? *think how many quarters make up a dollar and how many one would be

A nickel is what fraction of a dollar

A line goes on and one. When we draw a line, we include an arrowhead on each end to show that the line continues in both directions..


Part of a line is a line segment, or just segment. When we draw a segment, we do not include arrowheads. WE can use dots on the ends or leave it plain.

A ray is sometimes called a half line. Think of a ray of sunshine, it comes off the circle, so it has an endpoint and then it goes on forever.


Lines that go in the same direction and do not touch are called parallel lines


Lines that touch are called intersecting lines


Lines that form "square corners" are called perpendicular


Angles are formed when the lines intersect
Right angles make perfectly square corners. They usually will have a small box in the corner to show that they are right. If it is smaller than a right, it is acute angle. If it is larger than a right, it is called an obtuse angle.


Draw perpendicular lines

Draw a right angle
Draw an acute angle
Draw an obtuse angle

Draw two segments that intersect but are not perpendicular
Draw a ray

Are the rails of a train track perpendicular or parallel

A triangle has how many angles

Twenty-eight children were in the first line. Forty-two children were in the second line. Altogether, how many children were in both lines?

Round 92 to the nearest ten

Round $\$ 19.67$ to the nearest dollar

Kim placed two - 1 foot rulers end to end. What was the total length of the two rulers in inches

There were 47 apples in the big tree. There was a total of 82 apples in the big and the little tree. How many apples were in the little tree

Round 77 to the nearest ten

Round $\$ 29.39$ to the nearest dollar


How many dimes equal one dollar

One dime is what fraction of a dollar

Draw a rectangle that is 5 centimeters long and 2 centimeters wide. What is the perimeter

Jim had some marbles. Then he lost 15 marbles. Now he has 22 marbles left. How many marbles did Jim have in the beginning. Subtraction is the opposite of subtraction. Take 22 and add it to 15 . This gives you how many he had in the beginning.

Cara had 42 balls. She lost some. She has 29 balls left. How many balls did Cara lose?

Mike had 42 balls. Then he lost some. Now he has 26 balls. How many balls did Mike lose?

Ruth had 75 cents. Then she spent 27 cents. How many cents did she have now?

Round 78 to nearest ten.
Round $\$ 7.80$ to nearest dollar.
52-14=
62-38=
55-17=

WE can understand fractions better if we learn to draw them. Draw a rectangle and shade two thirds of it. Make sure the lines are equal parts.

Draw a circle and shade one fourth of it.

Draw a square and shade half of it

Draw a circle and shade three fourths of it

Use the digits 4,5,6 and write an even number less than 500

What is the perimeter of a triangle whose sides are : $10 \mathrm{~cm}, 6 \mathrm{~cm}$, and 8 cm

Round 19 to nearest ten

Round $\$ 10.90$ to nearest dollar

## Multiplication

Change this addition problem to a multiplication problem
$6+6+6+6+6$
$5 \times 6$ or 6
X5
Your turn:

Change each addition to a multiplication problem:
$3+3+3+3+3 \quad 9+9+9$
$7+7+7+7+7+7+7+7$

List the even numbers between 31 and 39

Round 63 to the nearest ten

Round $\$ 6.30$ to nearest dollar

Draw a circle and shade $3 / 4$ of it

The amount of time between two different clock times is called elapsed time. We can count forward or backward on a clock to solve elapsed time problems.


If it is the afternoon, what time will it be in 3 hours and 20 minutes.

If it is the morning, what time would it be 2 hours and 25 minutes earlier?
$400-300=$
663-363=

How many pennies equal one dollar

Eleven pennies are what fraction of a dollar

Draw a dot on your paper to represent a point, and from that point draw two perpendicular rays

We know how to count by $1,2,5$ easily. This will help us with our multiplication facts. When we have $3 \times 2$, we can say count by 3 , two times. Or $5 \times 6$ count by 5 s , six times.

| Solve: $2 \times 2=$ | $5 \times 3=$ | $1 \times 9=$ |
| :--- | :--- | :--- |
| $4 \times 2=$ | $5 \times 8=$ | $1 \times 5=$ |
| $10 \times 10=$ | $10 \times 8=$ | $12 \times 1=$ |

Greg ate seventy-two pieces of cake. Sarah ate forty-two pieces of cake. How many pieces of cake did they eat in all?

Kim needs $\$ 35$ to buy a baseball glove. She has saved $\$ 18$. How much more money does she need?

Draw a rectangle that is 4 cm and 3 cm wide. What is the perimeter of it?

Round 28 to nearest ten

Round $\$ 12.29$ to nearest dollar

It is 10:15 am. What time will it be ten minutes from now?
$386+388=$
73-29=

Which of the following shoes 3 ones and 4 hundreds
304
403
4003
3400

We will begin memorizing the basic multiplication facts
Zero times any number equals zero
$9 \times 0=0 \quad 12 \times 0=0$
One times any number equals that number:
$1 \times 8=8 \quad 6 \times 1=6 \quad 5 \times 1=5$
Two times any number doubles that number
$2 \times 5=10 \quad 2 \times 6=12 \quad 2 \times 8=16$
Five times any number equals a number that ends in zero or in five
$5 \times 1=5 \quad 5 \times 4=20 \quad 5 \times 8=40$

Ninety-two birds squawked nosily in the tree. Then some flew away. Twenty-four birds remained. How many birds flew away?

Use the digits 4,5,6 to write a three-digit odd number less than 640.

It is $3: 25 \mathrm{pm}$. What time will it be in 6 hours

Draw a rectangle 3 cm and 1 cm wide. What is the perimeter

Subtracting three digit numbers with regrouping-do this with your teacher

| 25 | If you cannot subtract, borrow from the |
| :---: | :--- |
| 365 | neighbor. Remember you are borrowing 1 <br> (tens really) so place that in front of your <br> -187 <br> 178 |

Your turn-rewrite vertically

It is 9:20 am, what time will it be in 15 minutes

Write 843 in expanded form.

Write 343 in words

There are 100 cents in a dollar. How many cents are in a half dollar
$4+3+8+7+5+1+1+2+10$

Forty-two apples is how many more than 13 apples? When you see the words "how any more" or "how many less" your key is to subtract. 42-13 =29 apples

Your turn:
Seventeen apples is how many fewer than 64 apples

Nineteen is how much less than 42

Forty-three is how much greater than twenty-seven

Mary has 42 peanuts. Sam has 22 peanuts. How many fewer peanuts does Sam have?

One hundred fifty is how much greater than twenty-three? Write a subtraction pattern and solve it

It is 8:05pm. What time will it be in three hours from now

Write 412 in expanded form

Write 432 in words

We are going to practice the 3 s for multiplication today
If you don't know how to count by 3's lets practice
$3,6,9,12,15,18,21,24,27,30$
$3 \times 2=3 \times 5=3 \times 7=\quad 3 \times 6=\quad 3 \times 3=$
We will be doing lots of practice with these. Keep memorizing them!
There are two hundred fourteen pages in a book. Kim has read eighty-six pages. How many more pages are left to read?

Use the digits 7,8,9 to make an even number greater than 800

Write 729 in expanded form

Round 66 to nearest ten

Round $\$ 6.67$ to nearest dollar
$62-x=38$ what is $x$

Is the value of three nickels and two dimes an even number of cents or an an odd number of cents

| hundred <br> millions | ten <br> millions | millions | comma | hundred <br> thousands | ten <br> thousands | thousands | comma | hundreds | tens | ones |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 7 | 9 | 4 | , | 4 | 3 | 2 | , | 6 | 9 | 4 |

$794,432,694$ is read : seven hundred ninety-four million, four hundred thirty-two thousand, six hundred ninety-four

Use commas to help separate the numbers. Start from the right and go towards the left and count over three places.

Place commas in proper place:
123456432 65899

When we write it in words, we place a comma (,) where the words millions, thousands would go. This shows how to separate each section.

Write 12345678 in words. *first place commas

Write 75, 634 in expanded form.
$70,000+5000+600+30+4$
You write 43,278 in expanded form

Write 14,413 in words
Write 3, 500,000 in words
Write 2040 in expanded form
Write 5280 in expanded form
What digit in $7,243,490$ is in the ten thousands place
Arrange these in chronological order, from earliest to latest
1969,1903, 1957, 1927

Use digits to write eight hundred ninety-five thousand, tow hundred seventy.

* we know at the word "thousand" to place a comma


## Answer is:

Use digits to write one hundred thirty-five million. *we know after the word "million" to placea comma. In this number, there is nothing so we put zeros.

Answer is:

Use digits to write seven thousand, twenty-five. *If we don't have the place value amount, we just write zeros.

Answer is:

Use digits to write:
Twelve thousand, seventy-five
Twelve million, five hundred thousand
Two hundred eighty million

Four hundred sixty-five is how much greater than twenty-four?

Write the number 25,463 in expanded form

If it is $4: 10 \mathrm{pm}$, what time will it be in four and a half hours

Change this addition problem to a multiplication problem $8+8+8+8+8+8$
Round 76 to the nearest tens

Round \$12.51 to the nearest dollar

535-268=
\$471-\$345=

A mixed number is a whole number combined with a fraction. The mixed number $31 / 2$ is read "three and one half."

How many circles are shaded? $11 / 2$


Use words to write $211 / 2$ ? We use the word "and" when naming mixed numbers. Twenty-one and one half.

Write fifteen dollars and twenty-five cents using a dollar sign? \$15.25
Use words to write $\$ 30.76===$ thirty dollars and seventy-six cents
Your turn:
Use words to write 12 ³/4
Write with a dollar sign : 8 cents
Write the value of two quarters, two dimes, and one penny.
Use words to write $\$ 12.25$
\$6.05-\$2.53=
\$5.32+\$8.99=

Use digits to write two hundred fifty million

Round 77 to the nearest ten

Round $\$ 7.82$ to the nearest dollar

We have learned that 100 pennies equals one dollar. Each penny is $1 / 100$ of a dollar. Since 20 nickels equals a dollar, each nickel is $1 / 20$ of a dollar. So we may describe part of a dollar by using a fraction or by using a dollar sign and a decimal point.

Three pennies are what fraction of a dollar? 3/100
Write the value of three pennies using a dollars sign and decimal point \$0.03
Which coin equals one fourth of a dollar? A quarter
Write $1 / 4$ of a dollar using a dollar sign and a decimal point $\$ 0.25$
Three dimes are what fraction of a dollar? 3/10
Your turn:
Write the value of three quarters using a dollar sign and a decimal point.
Write three quarters as a fraction of a dollar
Fifty pennies are what fraction of a dollar

Evan is 49 inches tall. His dad is 70 inches tall. Evan is how many inches shorter than his dad?

Lauren went to the pawn shop with $\$ 36.49$. She bought a movie and left the store with $\$ 11.80$. How much money did she spend?

Which letter has no right angles? T H E N

Use digits to write eighty-two thousand, five hundred

Round 176 to nearest ten

Round $\$ 17.60$ to nearest dollar

Write the value of three quarters using a dollar sign and a decimal point
$\$ 4.99+\$ 2.88=\quad 523-x=145$
$28+46+64+32+344$

Write 2503 in expanded form

Five hundred seventy-five thousand, five hundred forty-two in digits

Round 624 to nearest ten

Round $\$ 6.24$ to nearest dollar

It is morning 7:25. What time will it be 5 hours and 15 minutes from now

Use words to write 2 1/3


Notice the measurements on the above marker. We are going to measure to $1 / 4$ inch $1 / 2$ inch and $3 / 4$ inch

Measure this line to the closest quarter inch


Ann is twelve years old. Ann's mother is thirty-five years old. Ann's mother is how many years older than Ann?

Four hundred sixty-eight thousand, five hundred two boxes were in the warehouse. Use digits to write that number of boxes.

Write the 3905 in expanded form.

## Measurements

1 gallon of milk-for visual
4 quarts = one gallon Think four quart jars for one gallon
2 pints-think two smaller glass jars = 1 quart
2 cups into 1 pint jar
How many $1 / 2$ gallons in one gallon?
How many quarts in one gallon?
How many quarters equals a dollar?
Write the number 7,500,000 in expanded form

What digit is in the thousands place $27,384,509$
$536+n=621$
$416-\mathrm{g}=323$

What is the perimeter of a triangle with sides $4 \mathrm{~cm}, 2 \mathrm{~cm}$, and 3 cm

What is the sides of a square whose perimeter is 8 inches

Now we are going to add the 4 s for multiplication. Work on memorizing these facts
405
-126

In the above problem, we are going to have to regroup twice before we can do the ones place subtraction. We can't borrow from the " 0 " so we have to go to the " 4 " and then since we cant' jump place values, we need to add it to the zero first and then we can borrow from the 0 to do the ones place.

```
3 9
    4'0 5
-126
    279
```

Your turn: rewrite vertically
803-179=

201-102= 703-198=

Use digits to write one million, fifty thousand

| $4 \times 7=$ | $6 \times 4=$ | $3 \times 4=$ |
| :--- | :--- | :--- |
| $9 \times 4=$ | $8 \times 4=$ | $1 \times 4=$ |
|  | $2 \times 4=$ |  |
|  | $4 \times 5=$ |  |

The multiples of 10 are the numbers we say when we count by $10: 10,20,30,40 \ldots$
Likewise the multiples of 100: 100,200,300,400.....
When multiply by multiples of 10 and 100 , we focus our attention on the first digit of the multiple.
$3 \times 200$
We just multiple the $3 \times 2$, which is 6 and then add two zeros $=600$
$5 \times 40$
We just multiple the $5 \times 4$, which is 20 and then add that zero $=200$
Round 472 to nearest hundred---look at the hundreds place and determine which hundreds its inbetween 400 and 500 . Since 450 is the halfway point, 472 is above that so it rounds to 500 .

If we were to round 472 to nearest ten. It is in between 470 and 480 . Since 475 is the halfway point and its less, we round down to 470

Round 5280 to nearest hundred. Since this would be 5200 or 5300 , we know that 5250 is the halfway point and since it is more, we would round up to 5300 .

Your turn:
Round to nearest hundred:
813
685
2573
$50 \times 7=$
$500 \times 3=$
$6 \times 400$
$6 \times 40$
$2 \times 200$
$2 \times 20$
$4 \times 100$
$5 \times 50$

To add or subtract money amounts with a dollar sign and a decimal, we line up the decimal.
\$3.45-\$0.75=
\$5.35-\$2=
$\$ 3.75+\$ 4+15$ cents
$\$ 1.46+87$ cents
98 cents plus 89 cents

One hundred pennies are separated into two piles. In one pile there are thirty-fie pennies. How many pennies are in the other pile?

Round 572 to nearest hundred

Round 572 to nearest ten

Are the rails of a railroad track parallel or perpendicular

It is 8:05am, what time was it two hours ago

If there are 21 children in each classroom, then how many children are in 3 classrooms?

We could add 21, three different times to get our answer, or learn the quick multiplication way

21
X 3

You multiply $3 \times 1$ first. Then put your answer down. Then do $3 \times 2$.

21
X3
63

Your turn: rewrite them vertically
$42 \times 3$
$31 \times 2$
$43 \times 3$
$30 \times 2$
$30 \times 4$
24x0

When you have parentheses in an arithmetic problem, we work inside the parentheses first.
$2 \times(3+4)$
First add $3+4=12$, then $12 \times 2=24$

Your turn:
$3 \times(4+5)$
$(3+3) \times 2$

8-(4+2)

9-(6-3)
$3 \times(10+20)$

A whole hour is 60 minutes, how many minutes is half of an hour

How much change should you get back if you give the clerk \$5 for a box of candy that costs $\$ 3.85$

Write 234,540 in words

Remember that multiplication problems have three numbers. The multiplied numbers are factors and the answer is product.
Factor x factor $=$ product
If we know the two factors, we can multiply to get the product $4 \times 3=$ ? $\quad 12$
If we only know one factor and the product, you can use the missing factor by using division to find the number. Division "undoes" multiplication. Look at how to use the table to solve this $4 \times ?=12$

| Times Table - $12 \times 12$ |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 2 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
| 3 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 | 33 | 36 |
| 4 | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 | 44 | 48 |
| 5 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 |
| 6 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 |
| 7 | 7 | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70 | 77 | 84 |
| 8 | 8 | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | 80 | 88 | 96 |
| 9 | 9 | 18 | 27 | 36 | 45 | 54 | 63 | 72 | 81 | 90 | 99 | 108 |
| 10 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 |
| 11 | 11 | 22 | 33 | 44 | 55 | 66 | 77 | 88 | 99 | 110 | 121 | 132 |
| 12 | 12 | 24 | 36 | 48 | 60 | 72 | 84 | 96 | 108 | 120 | 132 | 144 |

Solve $32 \div 4=$, use the chart above to solve
$18 \div 2=$
$48 \div 6=$
$40 \div 5=$
$12 \div 6=$

Round 786 to nearest hundred

Round 786 to nearest ten

Draw and shade rectangles that show 2 1/3

There is more than one way to write a division problem. Here are three ways and they all say 20 divided by 5
$2 0 \div 5 = \frac { 2 0 } { 5 } \quad 5 \longdiv { 2 0 }$
In this math, we will do the first one typically

| $36 \div 6=$ | $42 \div 6=$ | $12 \div 6=$ |
| :--- | :--- | :--- |
| $18 \div 6=$ | $30 \div 6=$ | $72 \div 6=$ |

Use the digits $1,5,6,8$ to write an even number greater than 8420

Write the value of five dimes using a dollar sign and decimal point

Round 3296 to nearest hundred

Use words to write 15,000,000

95-(3x20)
$\$ 2.53+45$ cents +3 cents

Is $\$ 12.90$ closer to $\$ 12$ or $\$ 13$

## Two digit regroup multiplication

Often when we multiply the ones, the result is a two digit number. When this happens, we do not write both digits below the line. Instead of write the second digit above the tens column.
Seven times two is 14 . We write the four and carry the one $\begin{aligned} & 12 \\ & 12\end{aligned}$
$\times 7$
84

Then we multiply the tens digit and add the digit that we carried above this column. Seven times one is seven, plus one is eight.

Your turn: write vertically
$8 \times 64$
$16 \times 4$
$24 \times 3$
$35 \times 8$
$14 \times 3$
42x8
$100+(4 \times 50)$
$36 \div 6=$

We have added and subtracted decimal numbers by lining up the decimal points and adding or subtracting the digits in each column. We line up the decimal points to ensure that we are adding and subtracting digits with the same place value.

| hundreds | tens | ones | decimal | tenths $1 / 10$ | hundredths $1 / 100$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 4 | 3 | 2 | . | 5 | 6 |
| 432.56 |  |  |  |  |  |

Notice the places to the right of the decimal end in "ths"
Name the place value of the 3 in each number
23.4=ones
2.34=tenths 32.4=tens
4.23=hundredths

Add 3.75+12.5+2.47

### 3.75

12.5 -it helps to add a zero to hold a place here
$+2.47$
3.75
12.50
$+2.47$
18.72

## Subtract 4.25

-2.5 treat this empty space with a zero
4.25
-2.50

## Your turn:

$4.35+2.6$
4.35-2.6
$12.1+3.25$
0.75-0.7

Adding numbers with more than three digits
We do the same as we have done before with adding, start with the ones column and move to the left. Carry, when needed.

1
43,287
$+68,595$
111,882

Add 456+1327+52+3624
Put vertically, you should get 5459
$4356+5644$
46,027+39,682

To check a division problem, we can multiply to check
$21 \div 3=7$ or we can say $7 \times 3=21$
Divide and check by multiplication:
$49 \div 7$
$42 \div 6=$
$14 \div 7=$
$28 \div 7=$
$35 \div 7=$
$35 \div 5=$
$21 \div 3=$
$21 \div 7=$

Subtracting using more than three digits. Same concepts just work from column to column.

36,125-9,415
\$5000- \$2345=

4783-2497
4000-257
\$20.00-\$12.25

What are next three numbers:
.....6000,7000,8000, $\qquad$

49 x6 rewrite vertically
$70 \times 8$

Division with remainder

WE can divide 12 objects into equal groups of 4.
WE get 3 groups.
However, we cannot divide 13 objects into equal groups of 4.
We get 3 groups with one leftover. This is called the remainder
3 r 1

4
13
-12
1

Divide 3 | $5 r 1$ |
| :---: |
|  |
|  |
|  |
|  |
| $\frac{-15}{1}$ |

We have to know how many times 3 can go into $16=5$

You try: $20 \div 6$
$15 \div 2$
$26 \div 5$

Which months have exactly 30 days

Round 4728 to nearest hundred

Round 4728 to nearest ten

A year is the length of time it takes the Earth to travel around the sun. A day is the length of time it takes the Earth to spin around once on its axis. It takes the Earth exactly $3651 / 4$ days to travel around the sun. To make the number of days in every year a whole number, we have three years in a row that have 365 days each. These years are called common years. Then we have one year that has 366 days. This is called a leap year.

A year is divided into 12 months. The month of February has 28 days in a common year and 29 in a leap year. Four months have 30 days each. The rest have 31 . If we can remember this poem, it will help us to remember how many days are in each month:

Thirty days hath September
April, June, and November
February has twenty-eight alone,
All the rest have thirty-one
Except in leap year,when February's days are 29
A decade is ten years. A century is one hundred years.
How many days does December have?

How many years were there from 1630 to 1776 ?

Round a number to the nearest thousand, we find the multiples of 1000 to which the number is closest. 1000,2000,3000.....etc
Round 7836 to nearest thousand.
Its in between 7000 and 8000 and halfway would be 7500 . Since it is more, then it rounds to 8000.

Round 34,186 to nearest thousands. Since it is in between 34,000 and 35,000 and halfway is 34,500 it is less. So it rounds to 34,000

Your turn:
Round 5486 to nearest thousand

How many days in a leap year
A century is how many decades

Round 21,694 to nearest thousand

There were 7 students in each row. If there were 56 students in all, how many rows were there?

There were 7 nails in each board. If there were 42 boards, how many nails were there?

How many years is 5 decades?
Round 5236 to nearest thousand

Round 6929 to nearest thousand

When I opened my piggy bank, I found 17 pennies, 4 nickels, 5 dimes, and 2 quarters. What is the value of the money I found?
$784,250+9,284=$
\$51,236+\$36,357=

41,212-29,899=
2942-1879
$39 \times 8$
$54 \times 8$
$43 \div 7$
$64 \div 8$

What is the perimeter of a square with sides measuring 8 inches

## Multiples

If we multiply 4 by the numbers $1,2,3,4,5,6 \ldots$ we get

4,8,12,16,20,24,30....

These numbers are multiples of 4 . Or we could count by 4 s

The following are multiples of 6 :
$6,12,18,24,30,36 \ldots .$.

Your turn: List the first four multiples of 5

What is the third multiple of 8

What are the first five multiples of ten

Draw a rectangle that is 4 cm long and 3 cm wide

It is 3:50 in the afternoon. What time was it 30 minutes ago?

How long is this in centimeters

How long in inches to nearest $1 / 4$ inch

When we multiply a three digit number, we multiply the ones first, then the tens and then the hundreds.

If we have to carry, we do and then add it to the answer

32
654
$\times 7$
4578

## Your turn

$375 \times 3$ rewrite vertically

It takes 4 apples to make one pie. How many apples does it take to make 5 pies. Use a multiplication pattern to solve
$29 \div 7$

585-294
82-39
$59+68+81$
607+891

Use digits to write fifteen million, two hundred ten thousand

Mike can sharpen 5 pencils in a minute. How long will it take him to sharpen 40 pencils?

Alex was paid $\$ 40$ for 5 hours of work. How much money was he paid for each hour of work?

Round 286 to nearest hundred

Round 415 to nearest ten


Multiplying by 10
Remember how we multiplied by a multiple of tens, and hundreds? When we multiply by ten, we just add a zero. Because any number times one is the number. For example $32 \times 10=320$

Your turn:
$12 \times 10$
$15 \times 10$
$22 \times 10$
$343 \times 10$

Brooklyn weighed 88 pounds. She put on her clothes, which weighed 2 pounds, and her shoes which weight 1 pound each. * Finally she put on a jacket that weighed 3 pounds and stepped on the scale. How much did the scale show that she weighed?

Which of these numbers is a multiple of ten?
2
5
25
50

Shade the rectangle 3/8


The pumpkin pie was sliced into 6 slices. After 1 piece was taken, what fraction of pie was left?

What is the perimeter of a rectangle


2 cm

1000-(110x9)
3.675-1.76
$39 \div 5$
$39 \div 7$

To find the product of three numbers, we first multiply two of the numbers. Then we multiply the answer we get by the third number. To multiply four numbers, we must multiply once more.
$3 \times 4 \times 5$

Do any of the numbers $5 \times 4=20$, then $20 \times 3=60$

Your turn:
$4 \times 5 \times 10 \times 10$
$2 \times 3 \times 4$
$3 \times 4 \times 10$

887-291
$432+89$

Polygons are closed, flat shapes formed by line segments. Which of the following is a polygon?
A

b

C


Figure $A$ is not because it is not closed. $B$ is not because it is not flat. $C$ is not because the sides are not straight. $D$ is a polygon—closed and flat
 And made of line segments.

Polygons are named according to number of sides they have. The lengths of the sides may or may not be the same.

| four sided polygons quadrilaterals | $\square$ |  |  |
| :---: | :---: | :---: | :---: |
| five sided polygons are pentagons |  |  |  |
| six sided polygons are hexagons |  |  |  |
| eight sided polygons are octagons |  |  |  |

What kind of polygon is a square?

Three feet equals one yard. A car that is 15 feet long, is how many yards long?
Brook had 6 quarters, three dimes, and fourteen pennies. How much money did she have in all?

The cake was cut into 12 slices. Seven of the pieces were eaten. What fraction of the cake was left?

Solve each problem
There are 1 dozen cans of peaches in each carton. How many cans are in 2 cartons? Remember there are 12 items in one dozen.
$\qquad$ cans are in one dozen.

There are $\qquad$ cartons.

There are $\qquad$ cans of peaches in 2 cartons.

12 cans of pineapple are in each carton. How many cans are in 3 cartons?
There are $\qquad$ cans of pineapple in 3 cartons.

There are 1 dozen cans of pears in each carton. How many cans are in 4 cartons?

There are $\qquad$ cans of pears in 4 cartons.

Ten cans of orange sections come in each carton. How many cans are in 4 cartons?

There are $\qquad$ cans of orange sections in 4 cartons.

Easy day---work on multiplication facts and getting them all correct.
Copy down any that you miss and say them over and over again.

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In this lesson, we will learn a pencil and paper method for dividing a two digit number by a one digit number. We will demonstrate the method as we solve the problem:
The seventy-eight fifth graders at Elm School need to be divided equally among three classrooms. How many students should be in each room?

There are three numbers in this "equal groups" problem: the total number of students, the number of classrooms, and the number of students in each classroom.

Number of groups x number in each group= total

3 classrooms x $n$ (students in each classroom) $=78$
To find the number of students in each classroom, we divide 78 by 3

For first step, we ignore the 8 and divide 7 by 3 . We write the " 2 " above the 7 . Then we multiply 2 by 3 and write " 6 " below the 7 . Then we subtract and write " 1 ".


Now we divide 18 by 3 and get 6 . We write the 6 above the 8 in 78 . Then we multiply 6 by 3 and write " 18 " below the 18 .


We subtract and find the remainder is zero. This means that if the students are divided equally among the classrooms, there will be 26 students in each classroom

If you multiply 26 x3=78 to check your answer
Your turn: Do the above method for this 87 divided by 3. Then check your work.

Practice these, just take your time and do the same method as yesterday.
$3 \longdiv { 5 1 }$
$4 \longdiv { 5 2 }$
$5 \longdiv { 7 5 }$

Write 406,912 in expanded form

A stop sign has the shape of an octagon. How many sides do seven stops sign have?

One foot equals 12 inches. If each side of a square is 1 foot long, then what is the perimeter of the square in inches?

Some birds sat on the wire at sunup. After 47 more birds came there were 112 birds sitting on the wire. How many birds sat on the wire at sunup?

The numbers in a division problem are named the divisor, the dividend, and the quotient.

Dividend $\div$ divisor $=$ quotient

|  | quotient |
| :---: | :---: |
|  | dividend |

Identify the 8 in each of these problems as the divisor, dividend or quotient:
$8 \div 2=4$

$$
8 \longdiv { 2 4 } \quad \frac { 4 0 } { 5 } = 8
$$

Divide 525 by 5 and then check your answer

Divide 455 by 7

The chef uses 3 eggs for each omelet. How many omelets can be made with 24 eggs?

Kim wore braces for 3 years. For how many months did she wear braces?

Fred bought a book for $\$ 12.89$ and a folder for $\$ 3.29$. How much did he spend?

Each side of a hexagon is 1 cm long. What is the perimeter?
$168 \div 3$
$564 \times 4$
$12 \times 7 \times 10$
$100 \times 42$

Three quarters are what fraction of a dollar

Seventy-five beans were equally divided into 5 pots. How many beans were in each pot?

The server placed a full pitcher of water on the table. Which of the following is a reasonable estimate of the amount of water in the pitcher?
2 gallons 2 quarts 2 cups 2 ounces

If I were to drink a glass of orange juice for breakfast, what sounds like the reasonable size?

5 gallons
5 cups
6 ounces
6 quarts

A paper clip is closest to what?

| An inch | a foot | a mile |
| :--- | :--- | :--- |
| What is closets to 2 pounds? |  |  |
| A book | a door | a pencil |
|  |  |  |
| $95 \div 5$ | $234 \div 2$ |  |

149,384-987,765
$409 \times 70$

It took four spoonfuls to make one batch. How many spoonfuls were required to make 40 batches?

Jadyn drew an octagon and a pentagon. What was the total number of sides in the two polygons?

Mount Rainier stands four thousand, three hundred ninety-two meters above sea level. Use digits to write that number of meters
\$20-(\$8.95+75 cents)

43 cents $\times 8=$

Rewrite this addition problem as a multiplication problem and solve

64+64+64+64+64+64

47x30
$60 \times 39$

This line segment is one centimeter long:

If we divide a centimeter into ten equal lengths, each equal length is 1 millimeter long. A dime is about 1 millimeter thick.

The words centimeter and millimeter are based on Latin words. Centum is the Latin word for "hundred". A centimeter is one hundredth of a meter. $1 / 100$. Just as a cent is one hundredth of a dolar. Mille is latin word for thousand. A millimeter is one thousandth $1 / 1000$ of a meter. Just as a milliliter is one thousandth of a liter.

```
|||||||||||||||||||||||||||||||
0 cm 1 1 2 3
```

ZI II

Look at your ruler. And notice the centimeter marks. There are ten millimeters for every centimeter.

How many millimeters long is this


If a paper clip is 3 cm long, how many millimeters long is it?

Measure this in centimeter $\qquad$ millimeters $\qquad$


Sue's house key is 5.2 cm long, how many millimeters is her house key?

Forty-two students could ride in one bus. There were 30 buses. How many students could ride in all the buses?

We know that the fraction $1 / 2$ means that a whole has been divided into 2 parts. To find the number in $1 / 2$ of a group, we divide the total number in the group by 2 . To find the number in $1 / 3$ of a group, we dived the total number in the group by 3 . To find the number in $1 / 4$ of a group, we divide the total number in the group by 4 and so on.

One half of the carrot seeds sprouted. If 84 seeds were planted, how many seeds sprouted? Draw a figure if you need to

One third of the 27 students earned an A on the test. How many students earned an A?

One fourth of the team's 32 pointes were scored by Austin. Austin scored how many points?

What is $1 / 5$ of 40 ?

What is $1 / 3$ of 60 ?

What is $1 / 4$ of 60 ?

Forty-two million is how much greater than twenty-four million?

Sometimes division answers end with a zero. It is important to continue the division until all the digits inside the division box have been used.

For example: two hundred pennies are separated into 4 equal piles. How many pennies are in each pile?


The division might look complete, but it is not. The answer is not " 5 pennies in each pile" that would total only 20 pennies. There is another zero inside the division box to bring down. So we bring down the zero and divide again.

$$
\begin{array}{r}
40 \\
4 \longdiv { 2 0 0 } \\
-20 \downarrow \\
\hline 00 \\
-0
\end{array}
$$

Check $50 \times 4=200$

Your turn:

Divide 120 by 3 240 by 4

What is the value of 5 pennies, 3 dimes, 2 quarters, and 3 nickels?

One fourth of the students earned A's. There were 280 students in all. How many students earned A's?

What is $1 / 2$ of 560

Stephen could hop 72 times in 1 minute. At that rate, how many times could he hop in 9 minutes?
\$20- \$19,39=
$86 \times 40=$

One half of the 780 fans stood and cheered. How many fans stood and cheered? What percent of fans stood and cheered?

How many years in ten centuries?

A 2-liter bottle contains how many milliliters of soda?

What is the perimeter of a rectangle 6 inch by 4 inch?

Which of these is a multiple of 8
4
12
48

Seven thousand, three hundred ninety-six is how much less than eleven thousand, eight hundred seventy-three?

Shannon has five days to read a 200-page book. If she wants to read the same number of pages each day, how many pages should she read each day?

The prince searched 7 weeks for the princess. How many days did he search?

One third of the books were placed on the first shelf. What fraction of the books were not placed on the first shelf?

In the word HIPPOPOTAMI, what fraction of the letters are P's?
$4+8+6+8+2+10+2+1+1+4+7=$

The units of weight in the US are ounces, pounds, and tons. Remember that we used ounces to describe a fluid measurement, this is difference. This is about weight.
$16 \mathrm{oz}=1 \mathrm{lb}$
$2000 \mathrm{lb}=1$ ton
A box of cereal weighs 24 oz
Some students weigh 98 pounds
Many cars weigh 1 ton or more
Your school book weighs about 2 pounds. Two pounds is how many ounces?

The rhino weighed 3 tons. Three tons is how many pounds?

The newborn baby weighed 7lb 12 oz . The baby's weight was how much less than 8 pounds?

Simeon weighed 9 pounds when he was born. How many ounces is that?

How many centimeters is this


How many millimeters is this
$94,417+8,915=$

In nature, we often find balance in the appearance and structure of objects and living things. For example, we can see a balance in the wing pattern of moths and butterflies. We call this kind of balance symmetry.

We draw a line down the middle of an object and that is called the line of symmetry. If both sides are mirror images of each other, we can call them both symmetrical.

Which of the following are symmetrical


543x 3
$642 \div 2=$

If it is not a leap year, what is the total number of days in January, February, and March?

The shoemakers wife made each of the twelve children a pair of pants and 2 shirts. How many pieces of clothing did she make?

John did seven more chin-ups than Paul did. If John did 18 chin ups, how many chin ups did Paul do?

The tally marks for 8 are HH II I What are tally for 9 ?

If each side of an octagon is 1 centimeter long. What is perimeter in millimeters?

One third of the 18 marbles were purple. How many were purple?

Rob picked 46 peaches in one day. At that rate, how many peaches could he pick in 5 days?
mUltiplying by ten, hundred, and thousand

Remember when we multiply by ten, we just add a zero to the number
$42 \times 10=420$

When we multiply by 100, we add two zeros
$42 \times 100=4200$

When we multiply by 1000 , we add three zeros
$42 \times 1000=42,000$
$365 \times 10=7 \times 1000=420 \times 100=$

Jim saw some pentagons. The pentagons had a total of 100 sides. How many pentagons did he see?

A full pitcher of orange juice contains about how much juice? 2 ounces

2 liters
2 gallons
46.01- (3.68+10.2)
$37 \times 40=$

Multiplying two digit numbers

| 34 |
| ---: |
| $\times 12$ |
| 68 |

We draw a turtle head around the first part of the problem and multiply as usual. Then that turtle drops an egg(0) and we move over to the next place to do the other place value and multiply.

Your turn: 31 make your turtle head and multiply, then drop a X23 0 for the egg and multiply the other place value Then add the two together to get your answer.
32
43
34
X23
$\times 12$
$\times 21$

What is the tally for this number لH IH IIII

One half of the 18 players were on the field. How many players were on the field?

A dime is $1 / 10$ of a dollar. What fraction of a dollar is a penny?
$3 \longdiv { 4 7 7 }$
$5 \longdiv { 2 5 3 5 }$

Practice the division facts to memorize

Lets practice division mostly for the next week(-)

Lets practice division mostly for the next week(-)

Lets practice division mostly for the next week $:$

Lets practice division mostly for the next week $:$

Lets practice division mostly for the next week $\odot$

Lets practice division mostly for the next week $\cdot$

Lets practice division mostly for the next week:

Lets practice division mostly for the next week $:$

Lets practice division mostly for the next week $:$

Lets practice division mostly for the next week:

Here we show a picture of $1 \frac{1}{2}$ shaded circles. Each whole circle has been divided into two half circles.

$$
11 / 2=2 / 2+1 / 2=3 / 2
$$

We see from this picture that $1 \frac{1}{2}$ is the same as three halves, which is written $3 / 2$. The numerator is greater than the denominator so the fraction $3 / 2$ is greater than 1. Fractions that are greater than or equal to 1 are called improper fractions.

Your turn:
Draw circles to show that $23 / 4$ is equal to $11 / 4$

Draw circles to show that $13 / 4=7 / 4$

Multiply two digit
Remember how to do this—make the turtle head and drop an egg (0)

4
$[46$
$\times 27$
322

The second step is to multiply the 46 by the 2 .
$I_{A}$
46
$\times 27$
322
$+920$
1242
We ignore that 4 that we carried in the first step. Cross it off so you don't get confused.

Your turn:

Thinking of money can help us understand decimal place value.
Hundreds

Which digit in 12.875 is in the tenths place?

Which digit is in the hundredths place in 4.37 ?

Compare with $<>=$ (the wider part points to larger number)
23.25___ 23.250 Both numbers have same digits. When you attach a zero at the end it does not add value to the number. So the numbers are equal.

Subtract 4.37-1.146 Line them up vertically first
4.370—add that zero as a place holder then subtract
$-1.146$

What digit is in the hundredths place? 4.370

Name the place value of the 4 in the number 1.234 ?

Compare with < > =
3.25 32.50
3.250__ 3.25
12.34___1.23

Round 5456 to nearest thousand.

Round 2872 to nearest thousand

What is the tally for 10
$100 \times 45=$
$1000 \times 59=$

Draw a square with sides 4 cm long

Mary invited 14 friends for lunch. She plans on making 12 tuna sandwiches, 10 bologna sandwiches, and 8 ham sandwiches. How many sandwiches will she make in all?
Including Mary, each person can have how many sandwiches?
If Mary cuts each tuna sandwich in half, how many halves will there be?

Five pounds of grapes cost $\$ 2.95$. What was the cost per pound?

If each side of a hexagon is 4 inches long, what is the perimeter of the hexagon in feet?

Nine million, four hundred thousand is how much greater than two million, seven hundred thousand?
$\$ 25+\$ 2.75+\$ 15.44+27$ cents=
6.2-0.26=
$31 \times 17=$

George Washington was born in 1732 and died in 1799. How many years did he live?

A $\$ 1$ bill weighs about 1 gram. How much would a $\$ 5$ bill weigh?

Write tally marks for 14

One half of the 32 chess pieces were still on the board. How many chess pieces were still on the board?

Max left home at 10:30 am. He traveled for 7 hours. What time was it when he arrived?
4.12- $(3.6+0.2+0.125)$
\$18-\$15.63

Let's work on division problems.

Let's work on division problems

Let's work on division problems

Let's work on division problems

Let's work on division problems

Let's work on division problems

Let's work on division problems

Let's work on division problems

Write the tally for 16

Which digit in 1.875 is in the tenths place?
$8.3-(1.74+0.9)$
$63 \times 1000$
$37 \times 100$
$37+24+7+14+11=$
$52 \times 15=$ $42 \times 88$

Draw and shade rectangles to show that 1 2/5 equals 7/5

Which of these letters has two lines of symmetry

| $V$ | $W$ | $X$ | $Y$ | $Z$ |
| :--- | :--- | :--- | :--- | :--- |

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

If I want to know the average age of my children, I would first add up all the ages of my children:
$18,13,10,5,4$

Added up you get 50. Then divide by 5 -the number of numbers I'm adding and I get 10. That is the average age of my children.

Four vans carried the team to the soccer field. There were 5 players in the first van, 4 players in the second van, 3 players in the third van, and 8 players in the fourth van. What was the average number of players per van?

In three classrooms there were 24,26 , and 28 children. What was the average number of children per classroom?

For five days the temperatures were: 79, 82, 84, 81, and 74 degrees. What was the average for those five days?

Average-to find the average of a set of numbers, we added the numbers and then divided by the number of numbers. Another name for the average is the mean.

Find the mean of Tim's seven test scores:
80,85,85, 10,90,85, 90

The median of a set of numbers is the middle number when the numbers are arranged in order of size.

The range of a set of numbers is the difference between the largest and the smallest numbers. We subtract the smallest from largest number.

What is the median and the range of Tim's seven test scores:
Write them again in order if that will help

Mode—of a set of numbers is the number that occurs most often. What was the mode of Tim's test scores $\qquad$

Find the
mean $\qquad$ median $\qquad$ mode $\qquad$ range $\qquad$

31, 28, 31, 30, 25

Shapes such as triangles, rectangles, and circles are flat shapes that cover an area but do not take up space. They have length and width but not depth. Objects that take up space are things such as cars, basketballs, desks, houses, and people. Geometric shapes that take up space are called geometric solids.
Here are some common ones:


What is the shape of soup can?

What shape is a basketball?

What shape is funnel?

Use word to write 7.69

Use words to write 421.9

There were 24 people in one line and 16 people in another. What was the average number of people in line?

We remember that there are two forms for writing money amounts. 25 ¢ or you can write it $\$ 0.25$

Abe Lincoln was born in 1809 and died in 1865. How many years did he live?

What is the value of 3 ten dollar bills, 4 one dollar bills, 5 dimes, and 2 pennies?

Use words to write 6412.5

James opened a one gallon bottle of milk and poured out 1 quart. How many quarts of milk were left in the bottle?
\$68.47+\$36.99=
\$100- \$5.43=

The first five odd counting numbers are: $1,3,5,7,9$ Find the mean and the median of these five numbers

What geometric shape is a roll of paper towels
$3625 \div 6$ $3000 \div 5$

Draw and shade a circle to show that $8 / 8=1$

Each circle below is divided into parts. Together the parts of each circle make up a whole. We see that 2 halves is the same as 1 whole. We also see that 4 quarters is the same as one whole. As well as 8 -eighths equal one whole.


1 whole=2/2 $\quad 4 / 4=1$ whole $\quad 8 / 8=1$ whole

If the numerator of a fraction is the same as the denominator, the fraction equals 1.

Which of these fractions equals 1 ?
1/6 $6 / 6 \quad 7 / 6$
Write a fraction equal to 1 that has a denominator of 7 ?

How many minutes are in 3 hours?

Bill has \$8. Mary has \$2 less than Bill. How much money do they have altogether?

59x61= $400 \div 5=$

If the numerator of a fraction is equal to or greater than the denominator, the fraction is an improper fraction. All of these fractions are improper fractions:
$\begin{array}{lllll}\frac{12}{4} & \frac{10}{3} & \frac{9}{4} & \frac{3}{2} & \frac{5}{5}\end{array}$
To write an improper fraction as a whole or mixed number, we divide to find out how many wholes the improper fraction contains. If there is no remainder, we write the improper fraction as a whole number. If there is a remainder, the remainder becomes the numerator in a mixed number.

Write $\frac{13}{5}$ as a mixed number. Draw a picture to show that the improper fraction and mixed number are equal. Make circles and divide them into 5 parts. Shade 13 of them.

Write $\frac{10}{3}$ as a mixed number. Then draw a picture to show that the improper fraction and mixed number are equal.

Write $\frac{12}{4}$ as a whole number. Then draw a picture to show that the improper fraction and whole number are equal.

Change each improper fraction to a whole number or to a mixed number. Then draw a picture to show that the improper fraction is equal to the number you wrote.
$\frac{7}{2}$

$$
\frac{12}{3} \quad \frac{15}{5}
$$

If the perimeter of a square is 280 feet, how long is each side of the square?

There are 365 days in a common year. How many full weeks are there in 365 days?

Brook passed out cookies to her 6 friends. Each of her friends received 3 cookies. There were 2 cookies left for Brook. How many cookies did Brook have when she began?

Measure this segment in millimeters $\qquad$ and centimeters $\qquad$

Change the improper fraction $\frac{5}{4}$ to a mixed number. Draw a picture to show that the improper fraction and the mixed number are equal.

The cook used 30 pounds of flour each day to make pancakes and bread. How many pounds of flour did the cook use in 63 days?
$3.65+2.7+0.454+2.0=$
$\$ 80-(\$ 63.72+\$ 2)$
$24 \times 1000$
47x63=
$50 \times 50=$
$2304 \div 4$

Jason has $\$ 8$. David has $\$ 2$ more than Jason. How much money do they have altogether?

Write a fraction equal to one and that has a denominator of 10.

Write 86.743 with words.

Change each improper fraction to a whole number or a mixed number:

| $\frac{9}{5}$ | $\frac{9}{3}$ | $\frac{9}{2}$ |
| :--- | :--- | :--- |

Which digit in 86.743 is in the tenths place?
$54 \times 29$
$\$ 12.49 \times 8$
\$50.00-\$49.49=

We find the area of a rectangle or square by multiplying its length by its width. This is helpful if you want to figure out how much floor space or wall space that you need.

Area $=$ length x width


6 ft

The area of the above is $6 \mathrm{ft} \times 2 \mathrm{ft}=$ ? $\qquad$ What is the perimeter?


What is the area? $\qquad$ perimeter $\qquad$


2 cm

9 cm

What is the area $\qquad$ perimeter $\qquad$

Mary had a dozen cookies. She ate two cookies and then gave half of the rest to a friend. How many cookies did she have left?

Write a fraction equal to 1 and that has a denominator of 5

Use words to write 397 3/4

The hiking club went on a hike of 8 miles, 15 miles, 11 miles, and 18 miles. What was the average length of the club's hikes?
$41.6+13.17+9.2=$

The ranch market sold 54 dozen eggs in the morning. How many eggs is that?
$82 \times 43=$
$43 \times 22=$

Fill in the chart with tally marks and the real number

| how many windows in <br> your home |  |  |
| :--- | :--- | :--- |
| how many beds in <br> your home |  |  |
| how many tables in <br> your home |  |  |
| how many people in <br> your home |  |  |
| how many tvs in your <br> home |  |  |
| how many phones in <br> your home |  |  |
| how many pets in <br> your home |  |  |
| how many doors in <br> your home |  |  |

What geometric shape is the following:
A baseball $\qquad$
A party hat A can of corn $\qquad$

What is 589 plus 398
$7 x 6 \times 5 \times 9 \times 0$
$743.898+54.90$

Three hundred seconds is how many minutes. (there are 60 seconds in each minute)

On each of the 5 bookshelves, there are 44 books. How many books are on all 5 bookshelves?

Lets practice just multiplication test this week $\odot$

Lets practice just multiplication test this week $\odot$

Lets practice just multiplication test this week ()

Lets practice just multiplication test this week ()

Lets practice just multiplication test this week $\odot$

Lets practice just multiplication test this week ()

Lets practice just multiplication test this week ()
$\qquad$ of a square whose sides are 7 inch?

Round 6843 to the nearest thousand

Round 598 to nearest hundred

Round 329 to nearest ten

Round 4765 to nearest ten

Round 8333 to nearest hundred

Write 374.451 using words
30.07-3.7

Which of these letters has no lines of symmetry?

## MICKEY

Lets work on division this week ${ }^{\circ}$

Lets work on division this week ()

Lets work on division this week ()

Lets work on division this week ()

Lets work on division this week ()

Lets work on division this week ()

Lets work on division this week (:)

Lets work on division this week $(\underset{)}{ }$

Use words to write 356,320
$9.36-(4.37-3.8)$
24.32-(8.61+12.5)

In three classrooms there were 18,21 , and 21 students. What was the average number of students per classroom?

Skip's temperature is 99.8 degrees. Normal body temperature is 98.6 degrees. How many degrees above normal body temperature is Skips?

If 2 oranges cost 42 cents. How much would 8 oranges cost?
$340 \times 9$
$43 \times 33$
$432 \div 4$ $3912 \div 3$

| 28 | 5 |
| ---: | ---: |
| 47 | 2 |
| 74 | 4 |
| 36 | 7 |
| 91 | 3 |
| 87 | 3 |
| 21 | 5 |
| 12 | 2 |
| +14 | $\underline{1}$ |

Sarah's first nine tests she earned these scores:

90, $95,80,85,100,95,75,95,90$
What was the average

What is the median

What is the range
What is the mode

3 minutes seconds

4 days___ hours

3 yards feet

6 feet inches

16 quarts gallons

Use a ruler to draw a line segment for each measurement $11 / 2$ inch
$31 / 2$ inch
$41 / 2$ inch

5 inch
ft ..... in
2 yd ..... in
5 ft ..... in
7 yd

$\qquad$ ..... ft
2 mile ..... ft
1 mileft
1 foot ..... inch
1 yard ..... feet
1 foot=12 inch1 yard= 3 ft or 36 inch1 mile= 5280 ft

1 pint= 2 cups
1 quart= 2 pints
1 gallon= 4 quarts
6 cups ..... pt
4 pt ..... qt
8 qt ..... gallons
8pt ..... cups
10 gal

$\qquad$
quarts
16 quarts $\qquad$
1 gallon $\qquad$ quarts
1 quart pints
1 pint $\qquad$ cups

## 1 minute=60 seconds

1 hour=60 min
1 day=24 hours

8 min sec

5 hours $\qquad$ min

3 days hours

10 min $\qquad$ seconds

24 hours $\qquad$ min

7 days hours

Lets finish up with multiplication speed test, this is the most important thing that you can learn this year. Once you get this, math will become much easier. If you need to practice more, print off extra copies for the year.

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## Lets do division for last two days;)

Last day !!!! Division---keep memorizing these if you don't know them already!!

