

## • Word Problems About Comparing

- To find the difference between two numbers, subtract.

Formula	Problem	
Larger	52 apples	Always put the larger number on top.
– Smaller	– 21 apples	
Difference	31 apples	

- Watch for these words:

more  
fewer  
less than  
greater than

### **Practice:**

Read the word problem and fill in the blanks to solve the problems.

- Cray Lake is 74 feet deep. Silver Lake is 68 feet deep. How many more feet deep is Cray Lake?

\_\_\_\_\_ Cray Lake depth

\_\_\_\_\_ Silver Lake depth

\_\_\_\_\_ feet deeper

- Spencer had a collection of 63 comic books. His friend Annabeth had a collection of 78 comics. How many more comics does Annabeth have than Spencer?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ more comics

- Paulo lives 12 minutes from the pool, while Isaac lives 26 minutes from the pool. How many minutes more does it take Isaac to get to the pool than Paulo?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ minutes more

### • Multiplication Facts (9s, 10s, 11s, and 12s)

- 9s multiplication facts:

The **first digit** of the product is **one less** than the factor.

The **two digits** of the product always add up to **9**.

#### Sets of 9

$$8 + 1 = 9$$

$$7 + 2 = 9$$

$$6 + 3 = 9$$

$$5 + 4 = 9$$

- 10s multiplication facts:

To multiply a whole number by 10, copy the number, then attach a **zero**.

The **last digit** of the product is always zero.

We can see a pattern in the multiples of 10 using the following money model:

<b>Dimes</b>	1	2	3	4	5	6	7	8	9	10
<b>Pennies</b>	10	20	30	40	50	60	70	80	90	100

- 11s multiplication facts:

For the numbers 1–9, both digits in the product are the factor that is not 11.

We can see a pattern in multiples of 11 by looking at the number of players in a soccer team:

<b>Teams</b>	1	2	3	4	5	6	7	8	9	10
<b>Players</b>	11	22	33	44	55	66	77	88	99	110

When we multiply  $10 \times 11$ , we are using the multiplication rules for 10 *and* 11.

- 12s multiplication facts:

The digits in the product add up to a multiple of 3. Count up by 3s to check your work.

We can see a pattern in the multiples of 12 by thinking about feet and inches:

<b>Feet</b>	1	2	3	4	5	6	7	8	9	10
<b>Inches</b>	12	24	36	48	60	72	84	96	108	120

### **Practice:**

Find the product for each multiplication fact.

1. 
$$\begin{array}{r} 9 \\ \times 7 \\ \hline \end{array}$$

2. 
$$\begin{array}{r} 10 \\ \times 9 \\ \hline \end{array}$$

3. 
$$\begin{array}{r} 9 \\ \times 2 \\ \hline \end{array}$$

4. 
$$\begin{array}{r} 12 \\ \times 5 \\ \hline \end{array}$$

5. 
$$\begin{array}{r} 11 \\ \times 4 \\ \hline \end{array}$$

6. 
$$\begin{array}{r} 6 \\ \times 9 \\ \hline \end{array}$$

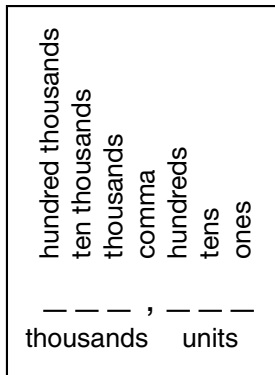
7. 
$$\begin{array}{r} 12 \\ \times 3 \\ \hline \end{array}$$

8. 
$$\begin{array}{r} 11 \\ \times 9 \\ \hline \end{array}$$

**• Writing Numbers Through Hundred Thousands**

- Use hyphens to spell out the numbers 21–99 (except numbers that end with zero).
- Remember to place a comma after the word **thousand**:

4507	written in words is	four thousand, five hundred seven
34,507	written in words is	thirty-four thousand, five hundred seven
234,507	written in words is	two hundred thirty-four thousand, five hundred seven



- Counting from the right, place a comma every three digits.

**Example:** 654321 → 654,321

- Picture the numbers in groups of three.  
 Each group is a family (thousands family, units family, etc.)  
 Each family has three members: ones, tens, and hundreds.

**Practice:**

Read the following numbers to your teacher:

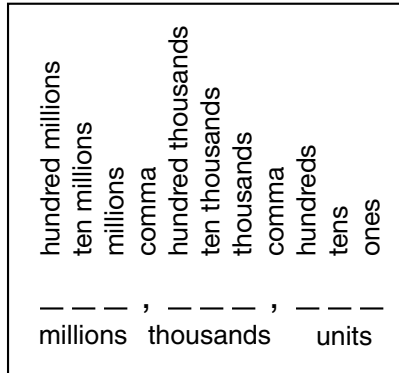
- |              |              |                |
|--------------|--------------|----------------|
| 1. (218),000 | 2. (516),000 | 3. (16),(300)  |
| 4. (675),000 | 5. (6)(385)  | 6. (450),(295) |

Use words to write these numbers:

7. (3)(112) \_\_\_\_\_
8. (21),(283) \_\_\_\_\_
9. (618),(493) \_\_\_\_\_
- \_\_\_\_\_

## • Writing Numbers Through Hundred Millions

- Use a comma to separate families. Three places follow every comma.



### **Practice:**

Use digits to write each number.

1. two million, two hundred fifteen thousand, six hundred eighty-four

\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

2. eighteen million, forty-five thousand, eight hundred five

\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

3. four hundred one million, nine hundred seventy-six thousand, nine

\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

4. eight million, seven hundred eleven, two hundred fifty-six

\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

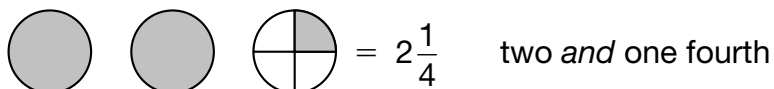
5. five hundred sixty-three million, eight

\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

## • Naming Mixed Numbers and Money

### Naming Mixed Numbers

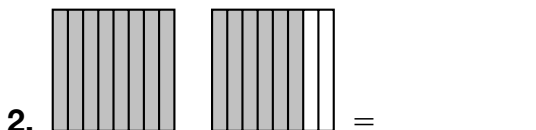
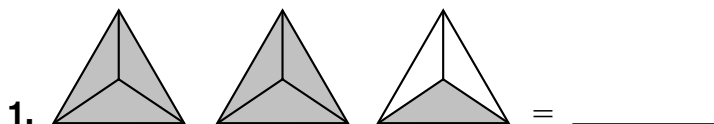
- A **mixed number** is a whole number and a fraction:  $3\frac{1}{2}$
- Use the word “and” when naming mixed numbers.



- In amounts of money, we use the word “and” to read the decimal point. The decimal point must be two digits from the end of the number. If there are no dollars, write a zero in front of the decimal point.  
\$0.04 means the same as 4¢, which we read as “four cents.”  
40¢ = \$0.40, which we read as “forty cents.”  
We read \$1.04 as “one dollar and four cents.”

### Practice:

What mixed numbers are pictured here?



Use words to write each mixed number.

3.  $10\frac{3}{4}$  \_\_\_\_\_

4.  $3\frac{75}{100}$  \_\_\_\_\_

Write each amount with a **cent sign** instead of a dollar sign.

5. \$0.34 \_\_\_\_\_

6. \$0.71 \_\_\_\_\_

Write each amount with a **dollar sign** instead of a cent sign.

7. 63¢ \_\_\_\_\_

8. 5¢ \_\_\_\_\_

### • Fractions of a Dollar

- Coins represent **fractions** of a dollar.
- One penny is one hundredth of a dollar.  
100 pennies = 1 dollar, so 3 pennies is  $\frac{3}{100}$  of a dollar.  
As a dollar amount, it looks like this: \$0.03
- One fourth is also called “one quarter.”  
4 quarters = 1 dollar, so 1 quarter is  $\frac{1}{4}$  of a dollar.  
As a dollar amount, it looks like this: \$0.25
- One dime is one tenth of a dollar.  
10 dimes = 1 dollar, so 3 dimes is  $\frac{3}{10}$  of a dollar.  
As a dollar amount, it looks like this: \$0.30
- One nickel is one twentieth of a dollar.  
20 nickels = 1 dollar, so 7 nickels is  $\frac{7}{20}$  of a dollar.  
As a dollar amount, it looks like this: \$0.35

### **Practice:**

1. Write the value of two quarters and a dime using a dollar sign and a decimal point. \_\_\_\_\_
2. Write two quarters and a dime as a fraction of a dollar. \_\_\_\_\_
3. What fraction of a dollar is three dimes? \_\_\_\_\_
4. Write the value of three nickels using a dollar sign and a decimal point. \_\_\_\_\_
5. Forty-five pennies are what fraction of a dollar? \_\_\_\_\_
6. Write the value of 45 pennies using a dollar sign and a decimal point. \_\_\_\_\_
7. Compare:  $\frac{2}{10}$  of a dollar  $\frac{1}{4}$  of a dollar  

↓

\_\_\_\_\_ ¢

↓

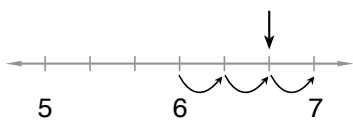
\_\_\_\_\_ ¢

○

**• Reading Fractions and Mixed Numbers from a Number Line**

- To name mixed numbers on a number line:
  1. Count segments from the whole number to the point to find the **numerator** (top number).
  2. Count the segments between whole numbers to find the **denominator** (bottom number).
  3. Remember to name the whole number.

**Example:**



1. Two segments between 6 and the arrow.  
The numerator is 2.
2. Three segments between 6 and 7.  
The denominator is 3.
3. The whole number is 6.  
The answer is  $6\frac{2}{3}$ .

**Practice:**

Name each fraction or mixed number marked by the arrows below.

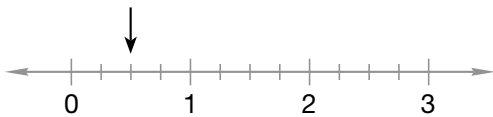
1. \_\_\_\_\_



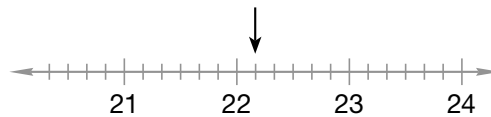
2. \_\_\_\_\_



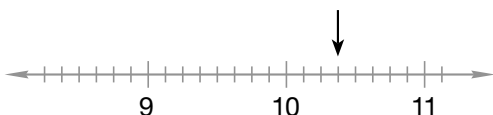
3. \_\_\_\_\_



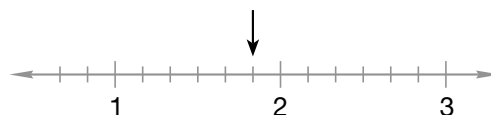
4. \_\_\_\_\_



5. \_\_\_\_\_



6. \_\_\_\_\_



• **Multiplication Facts (Memory Group)**

- Read and practice recalling these multiplication facts.

$3 \times 4 = 12 \quad 4 \times 7 = 28$

$3 \times 6 = 18 \quad 4 \times 8 = 32$

$3 \times 7 = 21 \quad 6 \times 7 = 42$

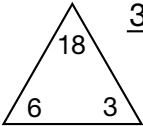
$3 \times 8 = 24 \quad 6 \times 8 = 48$

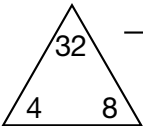
$4 \times 6 = 24 \quad 7 \times 8 = 56$

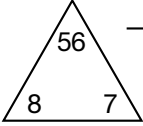
- Because multiplication and division are **inverse operations**, we can find division facts to complete a fact family for each fact in the memory group.

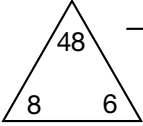
**Practice:**

Write two multiplication facts and two division facts for each fact family below.

1.   $3 \times 6 = 18$   $\times =$   $\div =$   
 $3 \overline{)18}$   $\overline{) \quad}$   $\overline{) \quad}$

2.   $\times =$   $\times =$   
 $\overline{) \quad}$   $\overline{) \quad}$

3.   $\times =$   $\times =$   
 $\overline{) \quad}$   $\overline{) \quad}$

4.   $\times =$   $\times =$   
 $\overline{) \quad}$   $\overline{) \quad}$

Multiply. Try to write the answers quickly without stopping between problems.

5.  $4 \times 3$  \_\_\_\_\_      6.  $4 \times 6$  \_\_\_\_\_      7.  $4 \times 7$  \_\_\_\_\_

8.  $3 \times 6$  \_\_\_\_\_      9.  $3 \times 7$  \_\_\_\_\_      10.  $3 \times 8$  \_\_\_\_\_

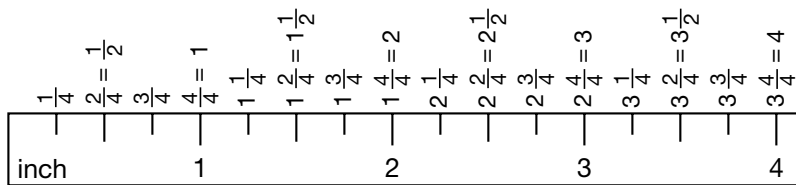
11.  $6 \times 4$  \_\_\_\_\_      12.  $6 \times 5$  \_\_\_\_\_      13.  $6 \times 7$  \_\_\_\_\_

14.  $7 \times 8$  \_\_\_\_\_      15.  $8 \times 7$  \_\_\_\_\_      16.  $8 \times 4$  \_\_\_\_\_



**• Reading an Inch Scale to the Nearest Fourth**

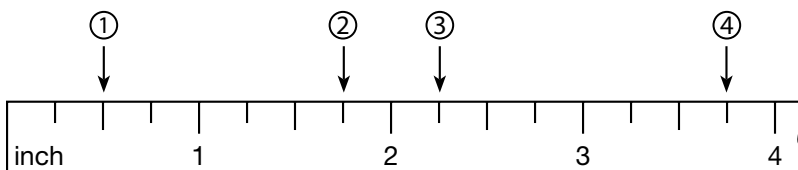
- Practice counting across the ruler below.



- Each **inch** on this ruler is divided into **fourths**.
- The long marks are inch marks.
- The short marks are  $\frac{1}{4}$ -inch marks.
- The marks halfway between the inch marks are  $\frac{1}{2}$ -inch marks.
- Remember,  $\frac{2}{4} = \frac{1}{2}$ .

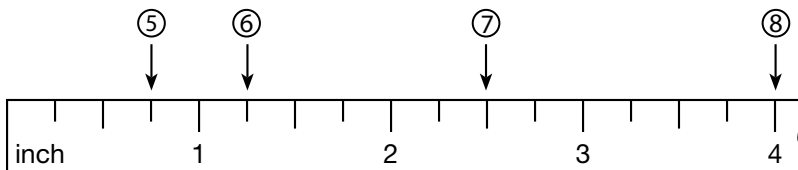
**Practice:**

Name each point marked by an arrow on this inch scale. Remember to write the units.



1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_ 4. \_\_\_\_\_

Read each point marked by an arrow on this inch scale to the nearest fourth.

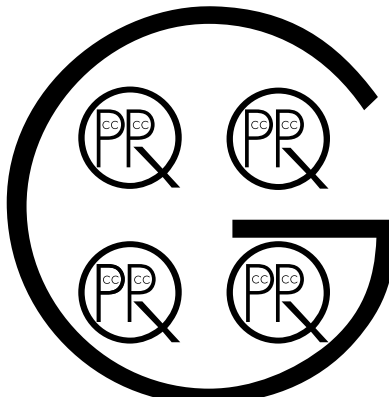


5. \_\_\_\_\_ 6. \_\_\_\_\_ 7. \_\_\_\_\_ 8. \_\_\_\_\_

**• Capacity**

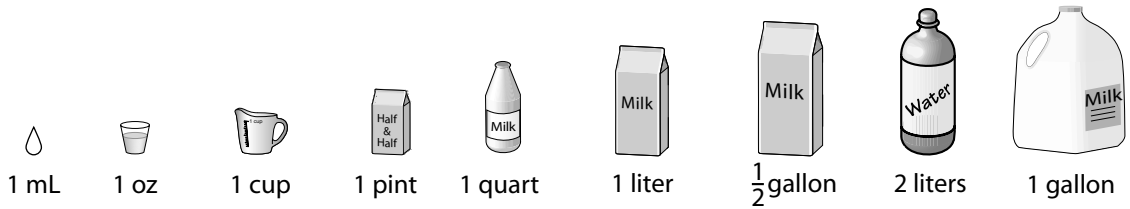
Capacity Units	
U.S.	Metric
oz ounce	mL milliliter
c cup	L liter
pt pint	
qt quart	
gal gallon	

**Liquids**



1 c = 8 oz  
1 pt = 16 oz  
1 qt = 32 oz

Capacity Equivalences	
U.S. Customary	Metric
16 oz = 1 pt	1000 mL = 1 L
2 pt = 1 qt	
4 qt = 1 gal	



**Practice:**

1. How many cups are equal to one quart? \_\_\_\_\_
2. How many pints are equal to one gallon? \_\_\_\_\_
3. How many ounces are equal to one pint? \_\_\_\_\_
4. Which is larger one quart or one liter? \_\_\_\_\_
5. How many milliliters in one liter? \_\_\_\_\_
6. How many milliliters will you need for 5 liters? \_\_\_\_\_
7. U.S. Liquid Measure

$$8 \text{ fl oz} = 1 \text{ c}$$

$$\underline{\hspace{2cm}} \text{ c} = 1 \text{ pt}$$

$$\underline{\hspace{2cm}} \text{ pt} = 1 \text{ qt}$$

$$\underline{\hspace{2cm}} \text{ qt} = 1 \text{ gal}$$