

Name \_\_\_\_\_

- **Adding Whole Numbers and Money**
- **Subtracting Whole Numbers and Money**
- **Fact Families, Part 1**

- To add money, line up the decimal points. Then add each column starting on the right.

**Example:**

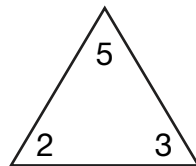
$$\begin{array}{r}
 \$ 1.25 \\
 \$12.50 \\
 + \$ 5.00 \\
 \hline
 \$18.75
 \end{array}$$

- When subtracting, put the starting amount first. Write \$6 as \$6.00. Then borrow across **all the zeros** in one step.

**Example:**

$$\begin{array}{r}
 \overset{5}{\cancel{6}}.\overset{9}{\cancel{0}}\overset{1}{\cancel{0}} \\
 + \$1.23 \\
 \hline
 \$4.77
 \end{array}$$

- When you learn **one** fact family, you know **four** facts.



$$\begin{array}{r}
 2 \\
 + 3 \\
 \hline
 5
 \end{array}$$

$$\begin{array}{r}
 3 \\
 + 2 \\
 \hline
 5
 \end{array}$$

$$\begin{array}{r}
 5 \\
 - 2 \\
 \hline
 3
 \end{array}$$

$$\begin{array}{r}
 5 \\
 - 3 \\
 \hline
 2
 \end{array}$$

**Practice:**

1. What is the sum of 2518, 457, and 1263?

\_\_\_\_\_

2.  $\$4.90 + \$0.65 + \$23 =$

\_\_\_\_\_

3.  $3782 - 469 =$

\_\_\_\_\_

4.  $\$3 - 3\text{¢} =$

\_\_\_\_\_

5. Jake paid \$5 for a \$3.96 sandwich. How much money should he get back?

\_\_\_\_\_

6. Use the numbers 3, 9, and 12 to make two addition facts and two subtraction facts.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- **Multiplying Whole Numbers and Money**
- **Dividing Whole Numbers and Money**

**Multiplication**

- When multiplying by a two-digit number, multiply twice.
- When multiplying dollars and cents, the answer will have cents places.

**Forms of Multiplication**

$$2 \times 3 \quad 2 \cdot 3 \quad 2(3)$$

**Division**

- Use *short* division with one-digit divisors.
  - Use *long* division with two-digit divisors.
- Remember:** Put a digit above each digit.  
Use zero as a placeholder.

**Forms of Division**

$$4 \overline{)12} \quad 12 \div 4 \quad \frac{12}{4}$$

“Twelve divided by four”  
Say the dividend first.

**Practice:**

1. Alicia bought 3 bracelets for \$3.25 each.

What was the total cost of the bracelets? \_\_\_\_\_

Simplify 2–5.

$$\begin{array}{r} 2. \quad 73 \\ \times 28 \\ \hline \end{array}$$

$$3. \quad 515 \cdot 23 = \underline{\hspace{2cm}}$$

$$4. \quad 9 \overline{)3744}$$

$$5. \quad \frac{322}{14} = \underline{\hspace{2cm}}$$

6. Use the numbers 7, 9, and 63 to make two multiplication facts and two division facts.

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Name \_\_\_\_\_

Math Course 1, Lesson 3

- **Unknown Numbers in Addition**
- **Unknown Numbers in Subtraction**

The quantity on either side of an equals sign is the same.

$$4 + 5 = 9$$

A letter can take the place of an unknown number.

$$4 + x = 9$$

**Addition:** addend + addend = sum

To find a **missing addend**, **subtract** the known addend from the sum.

**Examples:**

$$2 + a = 5 \longrightarrow 5 - 2 = a \longrightarrow a = 3$$

$$b + 3 = 5 \longrightarrow 5 - 3 = b \longrightarrow b = 2$$

**Subtraction:** minuend - subtrahend = difference

To find a **missing minuend**, **add** the difference and subtrahend.

To find a **missing subtrahend**, **subtract** the difference from the minuend.

**Examples:**

$$n - 3 = 2 \longrightarrow 2 + 3 = n \longrightarrow n = 5$$

$$5 - y = 2 \longrightarrow 5 - 2 = y \longrightarrow y = 3$$

### Practice:

Find each unknown number.

1.  $a + 12 = 30$

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

2.  $m + 32 = 59$

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

3.  $w + 47 = 81$

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

4.  $8 + b = 20$

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

5.  $47 + p = 82$

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

6.  $89 + k = 125$

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

7.  $c - 15 = 12$

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

8.  $s - 26 = 15$

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

9.  $t - 38 = 52$

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

10.  $49 - d = 36$

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

11.  $92 - f = 67$

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

12.  $2000 - d = 1215$

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

- **Unknown Numbers in Multiplication**
- **Unknown Numbers in Division**

$5w$  means "5 times  $w$ ."  $\frac{12}{x}$  means "12 divided by  $x$ ."

<b>Multiplication</b>	
factor $\times$ factor = product	
To find an unknown <b>factor</b> , <b>divide</b> the product and the known factor.	
<b>Example:</b>	
$5w = 20 \longrightarrow 20 \div 5 = w \longrightarrow w = 4$	
<b>Division</b>	
quotient $divisor \overline{)dividend}$	$\frac{dividend}{divisor} = \text{quotient}$
$dividend \div divisor = \text{quotient}$	
To find a missing <b>dividend</b> , <b>multiply</b> the divisor and the quotient.	
To find a missing <b>divisor</b> , <b>divide</b> the dividend by the quotient.	
<b>Examples:</b>	
$\frac{n}{3} = 6 \longrightarrow 6 \times 3 = n \longrightarrow n = 18$	
$y \overline{)35} \longrightarrow 35 \div 5 = y \longrightarrow y = 7$	

**Practice:**

Find each unknown number.

1.  $4x = 32$

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

2.  $6x = 78$

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

3.  $8m = 256$

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

4.  $\frac{w}{3} = 8$

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

5.  $\frac{n}{8} = 12$

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

6.  $\frac{k}{5} = 75$

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

7.  $\frac{28}{t} = 4$

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

8.  $\frac{144}{x} = 9$

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

9.  $p \overline{)414}^{46}$

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

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**• Order of Operations, Part 1**

- Work inside parentheses **first**.
- Use that answer to finish working the problem from left to right.

**Example:**  $5 + (3 \times 4)$

$\underbrace{\hspace{2em}}$

$5 + 12 = 17$

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**Practice:**

Simplify 1–6.

1.  $48 \div (12 \div 2) = \underline{\hspace{2cm}}$

2.  $40 - (20 - 12) = \underline{\hspace{2cm}}$

3.  $72 \div (3 \times 3) = \underline{\hspace{2cm}}$

4.  $40 - 20 - 12 = \underline{\hspace{2cm}}$

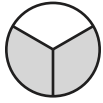
5.  $\frac{(12)(24)}{8} = \underline{\hspace{2cm}}$

6.  $5 \times 30 \div 15 = \underline{\hspace{2cm}}$

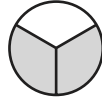
### • Fractional Parts

Numerator   ← shows how many of the parts are counted  
Denominator   ← shows the total number of parts

Name **how many** parts are **shaded** out of a **total** number of parts.



2 out of 3 are shaded  $\left(\frac{2}{3}\right)$



$\frac{2}{3}$  (two thirds) is shaded

$\frac{1}{3}$  (one third) is **not** shaded

$\frac{1}{2}$  of a number   →   divide by 2

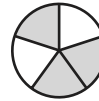
$\frac{1}{3}$  of a number   →   divide by 3

$\frac{1}{4}$  of a number   →   divide by 4

### Practice:

1. What is the denominator of  $\frac{13}{15}$ ? \_\_\_\_\_

2. What fraction of this circle is shaded? \_\_\_\_\_



3. What number is  $\frac{1}{4}$  of 40? \_\_\_\_\_

4. What number is  $\frac{1}{3}$  of 15? \_\_\_\_\_

5. What number is  $\frac{1}{2}$  of \$5.50? \_\_\_\_\_

6. A team won 3 of its 10 games.

What fraction of games did the team win? \_\_\_\_\_

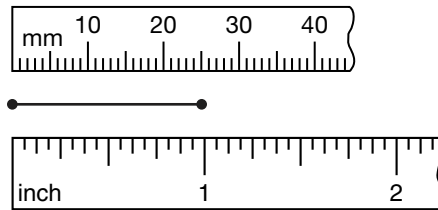
Name \_\_\_\_\_

- **Lines, Segments, and Rays**
- **Linear Measure**

Two systems of units are used to measure length:

- **U.S. Customary** (Uses fractions.)  
Some of the units in this system are inches, feet, yards, and miles.
- **Metric** (Uses decimals.)  
Some of the units in this system are millimeters, centimeters, meters, and kilometers.

**Example:** This line segment measures 25 mm on a metric ruler and about 1 in. on a customary ruler.



**Practice:**

1. Name each figure as a line, ray, or segment.



\_\_\_\_\_

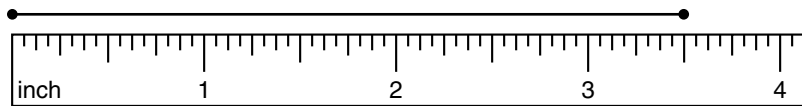
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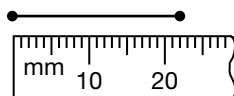
2. Which of the following illustrates a ray? \_\_\_\_\_

- A. A side of a rectangle
- B. The road between Austin and San Antonio
- C. A laser beam

3. How long is this line segment? \_\_\_\_\_



4. How long is this line segment? \_\_\_\_\_

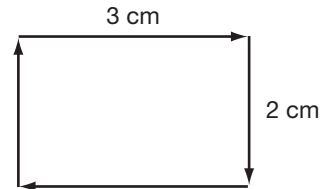


- **Perimeter**

- Perimeter is the distance **around** a shape.
- Add all the sides.

**Examples:**

Perimeter → add all sides  
 $3\text{ cm} + 2\text{ cm} + 3\text{ cm} + 2\text{ cm} = 10\text{ cm}$

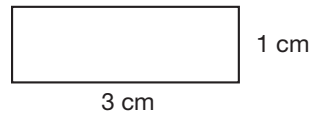


The four sides of a square are equal in length.  
 Perimeter → add all sides  
 $2\text{ cm} + 2\text{ cm} + 2\text{ cm} + 2\text{ cm} = 8\text{ cm}$

**Practice:**

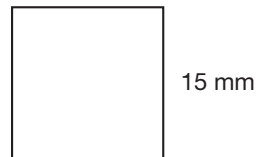
1. What is the perimeter of this rectangle?

\_\_\_\_\_



2. What is the perimeter of this square?

\_\_\_\_\_



3. What is the perimeter of a square that has sides 5 inches long?

\_\_\_\_\_

4. If the perimeter of a square is 16 inches, how long is each side?

\_\_\_\_\_



**• The Number Line: Ordering and Comparing**

- Ordering: arranging numbers in order from least to greatest
- Comparing: showing that one number is equal to ( $=$ ), less than ( $<$ ), or greater than ( $>$ ) another number

**Examples:**  $2 = 2$        $2 < 4$        $4 > 2$

The smaller end ( $<$ ) points to the *smaller* number ( $2 < 4$ ).

Before comparing expressions, find the value of each expression.

$$\underbrace{2 + 4}_6 \quad \bigcirc \quad \underbrace{2 \times 4}_8$$

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**Practice:**

1. Arrange these amounts of money in order from least to greatest.

\$2.40      \$24      \$0.24

\_\_\_\_\_

Compare 2–5.

2.  $3 \times 5 \bigcirc 30 - 10$

3.  $11 \times 7 \bigcirc 7 \times 11$

4.  $8 - 4 \bigcirc 8 \div 4$

5.  $9 - 2 \bigcirc 9 \times 2$

- **Sequences**
- **Scales**

A **sequence** is an ordered list of numbers that follows a certain pattern. Find that pattern and continue it.

- **Addition sequence:** the same number is added to each term

$$2, \overset{+2}{4}, \overset{+2}{6}, \overset{+2}{8}, \overset{+2}{10}, \dots$$

- **Multiplication sequence:** each term is multiplied by the same number

$$2, \overset{\times 2}{4}, \overset{\times 2}{8}, \overset{\times 2}{16}, \overset{\times 2}{32}, \dots$$

- **Even** numbers end with 0, 2, 4, 6, or 8.
- **Odd** numbers end with 1, 3, 5, 7, or 9.

A **scale** is a display of numbers similar to a number line with an indicator to show the value of a certain measure. Find the value of the marks on the scale first. Then read the indicated number.

**Practice:**

1. What number is next in this sequence?

3, 6, 12, 24, \_\_\_\_\_

2. What number is next in this sequence?

7, 14, 21, 28, \_\_\_\_\_

3. What is the eighth number in this sequence?

5, 10, 15, 20, ... \_\_\_\_\_

4. Which of the following numbers is odd? \_\_\_\_\_

**A.** 329

**B.** 3246

**C.** 7890

5. What are the next three numbers in this sequence?

4, 7, 10, 13, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

6. What temperature is shown on this thermometer? \_\_\_\_\_

