• Tables and Schedules

• **Tables** can be used to organize information.

Heights of Major Mountains

Mountain	Feet	Meters
Everest	29,035	8850
McKinley	20,320	6194
Kilimanjaro	19,340	5895
Matterhorn	14,691	4478
Pike's Peak	14,110	4301
Fuji	12,388	3776

Example: The Matterhorn is how many meters taller than Pike's Peak?

Solution: Use the numbers from the "Meters" column.

Matterhorn	4478 m
Pike's Peak	− 4301 m
	177 m

• A **schedule** is a list of events organized by time.

School-Day Schedule

6:30 a.m.	Wake up, dress, eat breakfast	3:30 p.m.	Start homework
7:30 a.m.	Leave for school	5:00 p.m.	Play
8:00 a.m.	School starts	6:00 p.m.	Eat dinner
12:00 p.m.	Eat lunch	7:00 p.m.	Watch TV
2:45 p.m.	School ends, walk home	8:00 p.m.	Read
3:15 p.m.	Eat snack	8:30 p.m.	Shower
		9:00 p.m.	Go to bed

Practice:

Refer to the table and the schedule above. Remember to write the units.

1. The Matterhorn is how many feet higher than Pike's Peak? _____

2. Mt. McKinley is how many meters taller than Mt. Fuji? _____

3. At what time does the school day end? _____

4. At what time is dinner? _____

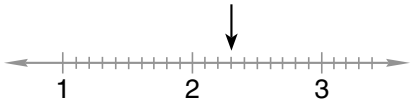
Name _____

Reteaching 102

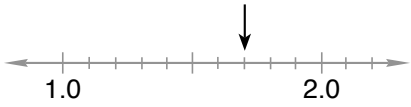
Lesson 102

• Tenths and Hundredths on a Number Line

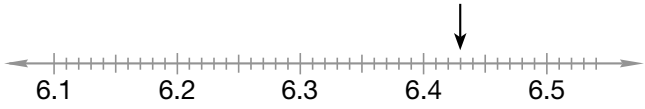
- On the number line below, the distance between whole numbers is divided into ten equal parts. The arrow is pointing to the number two and three tenths.



- On the number line below, the distance between whole numbers is divided into ten equal parts. The arrow is pointing to the number 7 tenths. Notice that the mixed number is written in **decimal form** as 1.7.



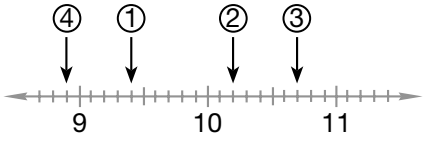
- The arrow below points to 6 plus a fraction. The fraction is 43 hundredths, which we can write as a decimal. The arrow points to 6.43.



- To round decimal numbers on a number line, find the decimal number, then find the nearest whole number. This can be a number to the right or left. If the decimal is exactly halfway between two whole numbers, use the number to the right (round up).

Practice:

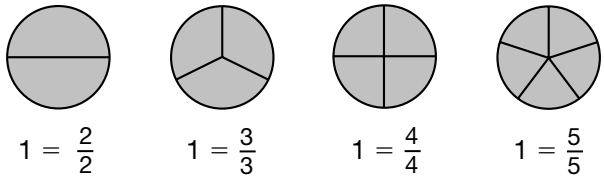
Write the decimal number to which each arrow points:



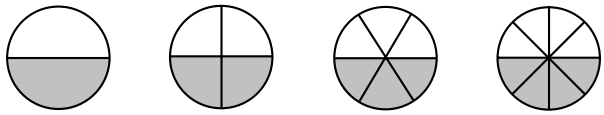
1. _____ **2.** _____ **3.** _____ **4.** _____

• Fractions Equal to 1, and Fractions Equal to $\frac{1}{2}$

- Each of the circles below is divided into equal parts. The parts combine to equal one whole circle.
- If the numerator (top number) and the denominator (bottom number) of a fraction are the same, the number equals 1.
- If the numerator (top number) of a fraction is half the denominator (bottom number), then the fraction equals $\frac{1}{2}$.



$1 = \frac{2}{2}$ $1 = \frac{3}{3}$ $1 = \frac{4}{4}$ $1 = \frac{5}{5}$



$\frac{1}{2}$ $\frac{2}{4}$ $\frac{3}{6}$ $\frac{4}{8}$

Practice:

Use fraction manipulatives to help answer the questions.

1. Write the number 1 in fraction form with a denominator of 4. _____

2. Which of these fractions equals 1? _____

A $\frac{5}{7}$ **B** $\frac{4}{7}$ **C** $\frac{8}{7}$ **D** $\frac{7}{7}$

3. Write a fraction equal to $\frac{1}{2}$ that has a denominator of 10. _____

4. Which of these fractions equals $\frac{1}{2}$? _____

A $\frac{3}{4}$ **B** $\frac{1}{4}$ **C** $\frac{2}{4}$ **D** $\frac{4}{4}$

Name _____

Reteaching 104

Lesson 104

• Changing Improper Fractions to Whole or Mixed Numbers

- To write an improper fraction as a mixed number, first divide the numerator by the denominator. The remainder can be written as the numerator of a fraction with the same denominator as the improper fraction.

  Example: Write $\frac{13}{3}$ as a mixed number.

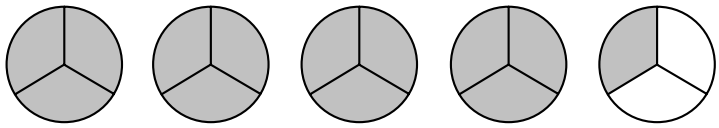
  Solution: To find the number of wholes, divide.

$$3\overline{)13} \quad \begin{matrix} \text{wholes} \\ \downarrow \\ 4 \text{ R1} \leftarrow \text{remainder} \end{matrix}$$

The remainder becomes the numerator of the fractioned part of the mixed number.

$$\frac{13}{3} = 4\frac{1}{3}$$

The picture below also shows that $\frac{13}{3}$ equals $4\frac{1}{3}$.

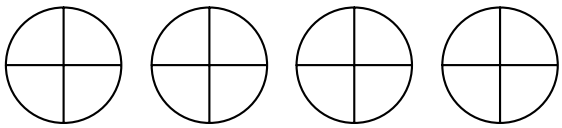


Practice:

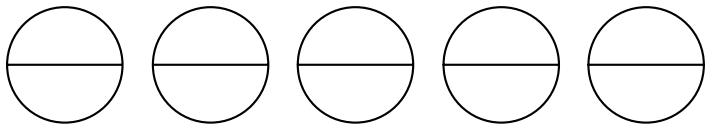
Write each improper fraction as a mixed number. Then shade the circles to represent the mixed number.

1. $\frac{8}{3} =$ _____

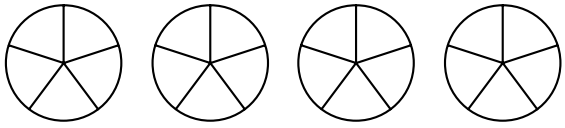
2. $\frac{14}{4} =$ _____



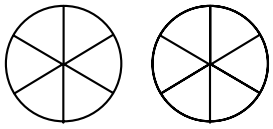
3. $\frac{9}{2} =$ _____



4. $\frac{17}{5} =$ _____



5. $\frac{11}{6} =$ _____



• Dividing by 10

- When dividing by 10, use **long division**.
- There are four steps in long division: divide, multiply, subtract, and "bring down."
- Remember:

  Use zero as a placeholder.
  Place a digit above each digit.

Example: $10\overline{)537}$

Solution: Ten will not divide into 5, but will divide into 53 five times. Be careful to write digits in the correct place above the dividend.

1. Divide 53 by 10 and write "5."
2. Multiply 5 by 10 and then write "50."
3. Subtract 50 from 53 and write "3."
4. Bring down the 7, making 37.

$$\begin{array}{r} 53\text{ R }7 \\ 10\overline{)537} \\ \underline{50} \\ 37 \\ \underline{30} \\ 7 \end{array}$$

Repeat steps:

1. Divide 37 by 10 and write "3."
2. Multiply 3 by 10 and then write "30."
3. Subtract 30 from 37 and write "7."
4. There is no number to bring down.

- When dividing by 10, there will never be a remainder if the dividend ends in 0. If the dividend does not end in zero, the remainder will be the last digit of the dividend.

Practice:

1. $10\overline{)106}$ R $\overset{0}{}$

2. $10\overline{)329}$ R $\overset{0}{}$

3. $10\overline{)592}$ R $\overset{0}{}$

4. $10\overline{)1016}$ R $\overset{0}{}$

5. $10\overline{)780}$ $\overset{0}{}$

6. $10\overline{)860}$ $\overset{0}{}$

7. Which of these can be divided by 10 without a remainder? _____

A 451 **B** 607 **C** 390 **D** 129

Name _____

• Evaluating Expressions

- **Evaluate** means find a value or answer a question.
- These are expressions:

  $n + 8$ $t - 5$ $4r$

- The letter in an expression is called a **variable** because it can mean something different in each problem.
- When you know what the letter represents (its value), you can solve the problem.

  Example: If n is 7, then what is the value of each of these expressions?

$n + 5$	$n - 5$	$2n$
$7 + 5 = 12$	$7 - 5 = 2$	$2 \times 7 = 14$

Practice:

1. If q equals 14, then what is the value of $q - 9$? _____

2. Evaluate $s + t$ when $s = 9$ and $t = 3$. _____

3. What is the value of mn when m is 5 and n is 8? _____

4. What is the value of b^2 when b is 3? _____

5. If $a = lw$, then what is a when l is 10 and w is 6? _____

6. Evaluate $\frac{x}{y}$ using $x = 15$ and $y = 3$. _____

7. Find the value of $\sqrt{g}$ when g is 64. _____

8. What is the value of $x + 3x + 5x$ when x is 2? _____

• Adding and Subtracting Fractions with Common Denominators

- When adding fractions with common denominators:

  Add only the numerators (top numbers).
  The denominator (bottom number) stays the same.

$$\begin{array}{r} \frac{3}{7} \\ +\ \frac{3}{7} \\ \hline \frac{6}{7} \end{array}$$

- When subtracting fractions with common denominators:

  Subtract only the numerators (top numbers).
  The denominator (bottom number) stays the same.

$$\begin{array}{r} \frac{3}{7} \\ -\ \frac{2}{7} \\ \hline \frac{1}{7} \end{array}$$

Practice:

1. $\frac{2}{3} + \frac{1}{3} =$ _____ **2.** $\frac{1}{4} + \frac{2}{4} =$ _____ **3.** $\frac{2}{5} + \frac{2}{5} =$ _____

4. $\frac{9}{11} - \frac{4}{11} =$ _____ **5.** $\frac{4}{5} - \frac{3}{5} =$ _____ **6.** $\frac{3}{4} - \frac{2}{4} =$ _____

7. $\frac{2}{6} + \frac{3}{6} =$ _____ **8.** $\frac{1}{4} + \frac{2}{4} =$ _____ **9.** $\frac{4}{5} - \frac{2}{5} =$ _____

• Formulas
• Distributive Property

- A **formula** is a rule for finding the answer to a problem.

  Area = length × width

- Formulas are usually written with letters for abbreviation.

  $A = lw$

- This chart shows common formulas.

  P represents the perimeter.

  s represents the length of a side of a square.

  b represents the base of a triangle or parallelogram.

  h represents the height of a triangle or parallelogram.

Common Formulas	
Area of a rectangle	$A = lw$
Area of a triangle	$A = \frac{bh}{2}$
Perimeter of a rectangle	$P = 2(l + w)$ $P = 2l + 2w$
Area of a square	$A = s^2$
Perimeter of a square	$P = 4s$
Area of a parallelogram	$A = bh$

- The formula for the perimeter of a rectangle demonstrates the **Distributive Property of Multiplication**.

  Perimeter of a rectangle $P = 2(l + w)$ and $P = 2l + 2w$

$$2(l + w) = 2 \times l + 2 \times w$$

Example: Use the Distributive Property to multiply:

$$3\,(10 + 2)$$

To use the Distributive Property, multiply first and then add the products.

$$\begin{aligned} 3(10 + 2) &= (3 \times 10) + (3 \times 2) \\ &= 30 + 6 \\ &= 36 \end{aligned}$$

Practice:

Use the Distributive Property to multiply:

1. $5(2 + 10) =$

_____ × _____ + _____ × _____ = _____

2. $8(2 + 7) =$

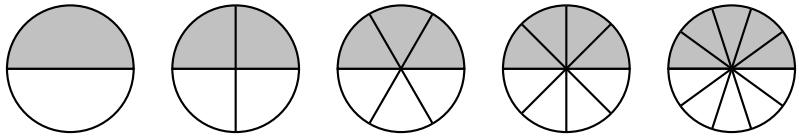
_____ × _____ + _____ × _____ = _____

3. $4(10 + 2) =$ _____

4. $3(20 + 3) =$ _____

• Equivalent Fractions

- Equal portions of each circle below have been shaded. Notice that different fractions are used to name the shaded portions.



$\frac{1}{2} = \frac{2}{4} = \frac{3}{6} = \frac{4}{8} = \frac{5}{10}$

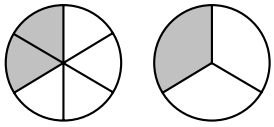
- These fractions all name the same amount. Different fractions that name the same amount are called **equivalent fractions**.

Practice:

Name the equivalent fractions shown.

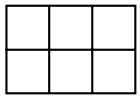
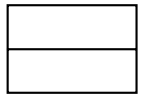
1. 

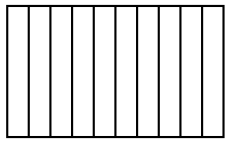
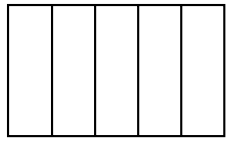
_____ = _____

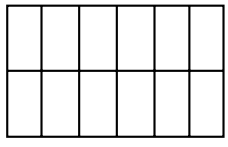
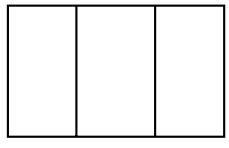
2. 

_____ = _____

Shade the rectangles to show that the following pairs of fractions are equivalent:

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

4. $\frac{6}{10}$  $= \frac{3}{5}$ 

5. $\frac{8}{12}$  $= \frac{2}{3}$ 

Name _____

Reteaching 110

Lesson 110

• Dividing by Multiples of 10

- Use long division to divide by multiples of 10, just like dividing by 10.

  Divide, multiply, subtract, and "bring down."
- Remember:

  Use zero as a placeholder.

  Place a digit above each digit.
- Place the digits of the answer in the places above corresponding places in the dividend.

Example:

$$\begin{array}{r} {\scriptstyle 0}\ 2\ \text{R}\,28 \\ 30\overline{)\,8\ 8} \\ -\ 6\ 0 \\ \hline 2\ 8 \end{array}$$

Practice:

Solve using long division.

1. $20\overline{)75}$ R ^{0}

2. $40\overline{)165}$ R $^{0\ 0}$

3. $30\overline{)51}$ R ^{0}

4. $60\overline{)493}$ R $^{0\ 0}$

5. $50\overline{)760}$ R ^{0}

6. $70\overline{)210}$ $^{0\ 0}$