

• **Finding Unstated Information in Fraction Problems**

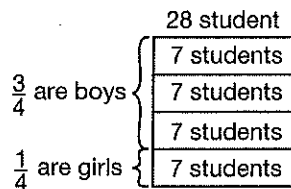
The following sentence directly states information about the number of boys in the class.

It *indirectly* states information about the number of girls in the class.

Three fourths of the 28 students in the class are boys.

Diagram the statement:

- Into how many parts is the class divided?    4 parts
- How many are in each part?                     $28 \div 4 = 7$
- How many parts are boys?                    3 parts
- How many boys are in the class?            $3 \times 7 = 21$  boys
- How many parts are girls?                    1 part
- How many girls are in the class?           7 girls



**Practice:**

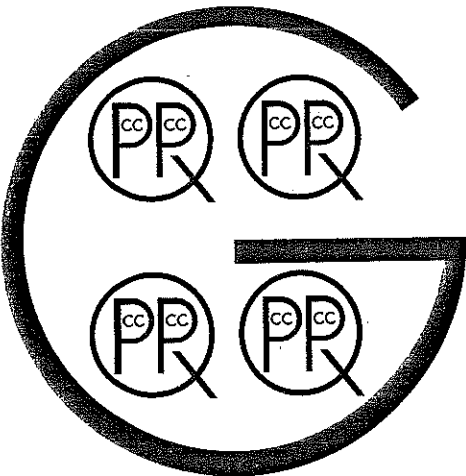
1. If  $\frac{1}{4}$  of the dozen eggs were cracked,  
 how many eggs were not cracked? \_\_\_\_\_
  
2. If  $\frac{2}{5}$  of the 200 flowers bloomed, how many flowers did not bloom? \_\_\_\_\_
  
3. Two thirds of the 24 runners finished. How many did not finish? \_\_\_\_\_
  
4. Three eighths of the 32 students are in chorus.  
 How many students are not in chorus? \_\_\_\_\_

Name \_\_\_\_\_

Math Course 1, Lesson 78

**• Capacity**

**Liquids**



1 c = 8 oz  
1 pt = 16 oz  
768 tsp = 1 gal



1 gallon



$\frac{1}{2}$  gallon



1 quart



1 pint



1 cup

**Equivalence Table for Units of Liquid Measure**

U.S. Customary System	Metric System
1 gallon = 4 quarts	1 liter = 1000 milliliters
1 quart = 2 pints	
1 pint = 2 cups	
1 pint = 16 ounces	
1 cup = 8 ounces	

**Practice:**

1. A pint is what fraction of a quart? \_\_\_\_\_
2. A quart of milk is how many cups? \_\_\_\_\_
3. How many quarts are in  $\frac{1}{2}$  gallon? \_\_\_\_\_
4. A gallon of juice will fill how many 8-ounce cups? \_\_\_\_\_

• **Area of a Triangle**

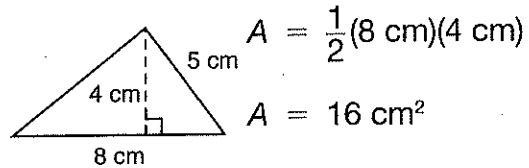


- Notice that the area of any triangle is:

$\frac{1}{2}$  the area of a parallelogram with the same base and height

- So the formula for the area of a triangle is:

$$A = \frac{1}{2}bh \text{ or } A = \frac{bh}{2}$$

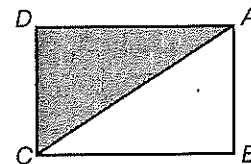


- The height is perpendicular to the base.
- Area is expressed in **square** units ( $16 \text{ cm}^2$ ).

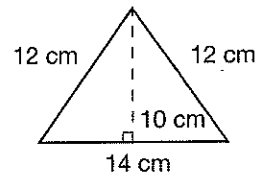
**Practice:**

1. Figure  $ABCD$  is a rectangle. Segment  $AD$  is 5 cm long, segment  $DC$  is 4 cm long, and segment  $AC$  is 6 cm long. What is the area of triangle  $ADC$ ?

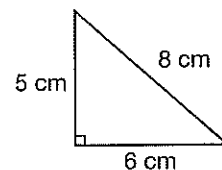
\_\_\_\_\_



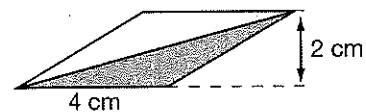
2. What is the area of this triangle? \_\_\_\_\_



3. What is the area of this triangle? \_\_\_\_\_

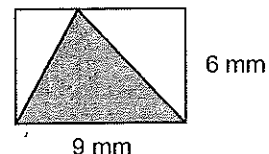


4. What is the area of the shaded part of this parallelogram? \_\_\_\_\_



5. The area of the shaded part of this rectangle is half of the area of the rectangle.

What is the area of the shaded triangle? \_\_\_\_\_



Name \_\_\_\_\_

Math Course 1, Lesson 80

### • Finding Scale Factor to Solve Ratio Problems

- Use a ratio box to sort the numbers in a ratio problem.
- Ratio numbers and actual counts are related by a **scale factor**.
- Find the factor by which the actual count was reduced to form the ratio.

**Example:** The ratio of boys to girls in the class was 3 to 2. If there were 8 girls in the class, how many boys were there?

	Ratio	Actual Count
Boys	3	
Girls	2	8

Ratio  $\times$  scale factor = actual count

$$2 \times 4 = 8$$

$$3 \times 4 = 12$$

There were 12 boys in the class.

### Practice:

1. The ratio of red flowers to white flowers in the garden was 4 to 3.

If there were 30 white flowers, how many red flowers were there? \_\_\_\_\_

2. The ratio of girls to boys on the soccer team was 3 to 5.

If there were 10 boys on the team, how many girls were there? \_\_\_\_\_

3. The ratio of vans to cars in the parking lot was 2 to 4.

If there were 24 cars in the lot, how many vans were there? \_\_\_\_\_

4. The ratio of white chalk to colored chalk in the box was 6 to 4. If there were 16 pieces of colored chalk in the box, how many pieces of white chalk were there?

\_\_\_\_\_