Name:_____   PD:_____

- Ratios
- Unit Rates
- Proportions
- Similar Figures
- Unit Conversions (Both English & Metric)

A survey on favorite colors was created. List all three forms of ratios for the following:

1) Green to Yellow

Favorite Color	Number of People
Green	23
Yellow	20
Blue	16
Red	25

2) Blue to Yellow

3) Red to Total Number of People

4) The WoodCreek Junior High PTA is buying food for Fun Food Friday. They have narrowed their choices down to 3 different stores that they can choose to buy their candy from. In order to save the most money as possible, help the PTA decide which store has the cheapest unit price (price per candy bar).

Store	Price and Packaging
A	25 Candy Bars for $25
B	15 Candy Bars for $20
C	10 Candy Bars for $8

For #5 and #6, find the unit rate, rounding to the nearest tenth if necessary. Don't forget both the labels for each problem!

5) In 4 months, 104 gallons were used (determine gallons per month)

6) 322 miles in 7 hours (determine miles per hour)

8) 5 movie tickets for $37.50 (determine cost per ticket)

Using the information provided below, write the following ratios in all three forms in <u>simplest form</u>.

Animal	San Diego Zoo	Houston Zoo
Elephants	6	5
Snakes	102	78
Lions	4	5
Gorillas	8	5

Total elephants to total gorillas (refer to both zoos together)

Total animals at San Diego zoo to total animals at Houston zoo

Number of snakes at San Diego zoo to number of snakes at Houston zoo

Using your formula chart, convert the following units.

$\frac{3}{4}$ year = _____ days

1 hour = _____ seconds

3 miles = _____ inches

Compare using <, >, or =.

56 cm ◯ 6 m   7 g ◯ 698 mg
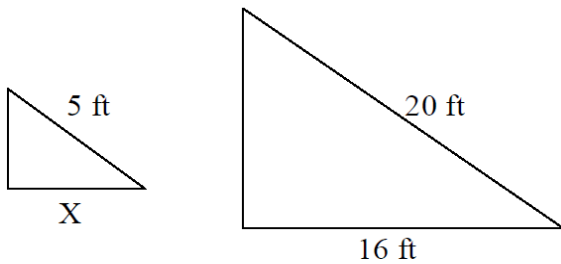
Set-up a proportion and solve the following word problems. Be sure to label your answers appropriately.

Water was leaking from a faucet at a rate of ½ gallon every 2 minutes. If it took 18 minutes to stop the leak, how much water was wasted?

The ratio of mango juice to guava juice in Paradise Punch is 5 to 3. Leah has 32 fluid ounces of mango juice. How much guava juice does she need?
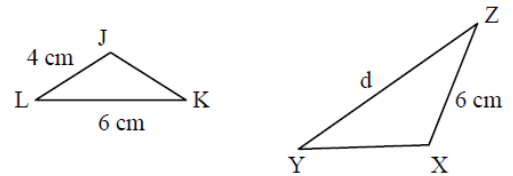
The triangles below are similar. Find the length of the missing side.

5 ft

X

20 ft

16 ft

X =

Given: $\Delta JKL \sim \Delta XYZ$

J

4 cm

L

6 cm

K

d

Z

6 cm

Y

X

d = _____

The figures below, and their shadows, create similar figures. How tall is the tree? (Round your answer to the nearest tenths place.)

6 ft

43 ft

9 ft