

2. a) A rectangle has a width:height ratio of 3:2. It's 612 cm wide, how tall is it? **408 cm**
b) A rectangle has a width:height ratio of 3:2. It's 612 cm wide, how tall is it? **918 cm**

4. Here are some mild proportional reasoning problems:

- a) Davey drove 160 miles in 3 hours. If she continued at the same rate, how far would she travel in 5 hours?
b) 2 cups of flour are needed to make 20 cookies. How many cups of flour are needed to make 110 cookies?
- c) A water pump that can fill a 750-gallon tank in 35 minutes. How long will it take this same water pump to fill a 1000-gallon tank?
d) You are making a scale drawing of a house and the peak of the roof is 24ft. The scale of the drawing is 2 cm represents 5 ft in reality. How many centimeters tall will your drawing be?

6. Planet Scale Model: Using a model of the sun that is 10 feet in diameter. If we are making a scale model of our solar system, what would the diameter of the scale model of the earth be? And how far away from the model sun would our model earth be? What about Neptune?

Necessary Information	Possibly helpful unit conversions
Sun diameter:	1 miles = 5280 ft
Earth diameter: 7,926 miles	1 ft = 30.48 cm
Neptune diameter:	Online unit converter
Distance from sun to Earth: 91,778,000 miles	
Distance from sun to Neptune: 2,779,000,000 miles	