Foundations of Math 1 **2.7 PROPORTIONS** Unit 3 Day 9

**Proportion:** An equation that states that two ratios are equal. You can solve by \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Examples:

2. A map has a scale of 1in: 25mi. Two cities are 175 miles apart. How far apart are they on the map?
3. A wall that measures 8ft by 15ft required 1.5 quarts of paint, how many quarts will be needed to paint a wall that measures 10ft by 24ft?
4. A marathon runner ran the first 3mi in 17.2 min. If she continues running at the same pace, how long will it take her to run the entire marathon of 26.2 miles?

**Practice:** Complete each of the following.

4. A band went to a recording studio and recorded 4 songs in 3 hours. How long would it take the band to record 9 songs if they record at the same rate?

**Classwork:** Complete the following in class for credit! Show all work!

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**16-19. For each word problem, write and then solve the proportion to find the answer. Be sure to set it up the correct way and show all work.**

1. A 380-cubic-centimeter sample of titanium has a mass of 1710 grams. Find the weight of a titanium sample that has a volume of 532 cubic centimeters. Write and then solve a proportion to find the answer.
2. The Ardrey Kell football team outscored its opponents 5:2 last season. If their opponents scored 38 points, how many points did Ardrey Kell score?
3. In the local coed softball league, the male to female ratio is 6:6. If there are 160 players in the league, how many are female?
4. In a certain desert environment there are a lot of small rodents. There also happen to be a lot of snakes that feed on the rodents. The ratio of rodents to rodent eating snakes is 13 to 3. If there are 4,000 snakes in the area, about how many rodents are there?