Name _____ Date _____ Pd ____

Bridge to Algebra 2   **7.6 DAY ONE WS**

Solve each proportion. Show work for full credit.

1. $\dfrac{2}{3} = \dfrac{x}{6}$

2. $\dfrac{x}{10} = \dfrac{5}{9}$

3. $\dfrac{x+1}{2x+3} = \dfrac{2}{3}$

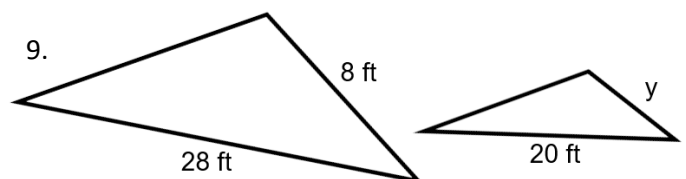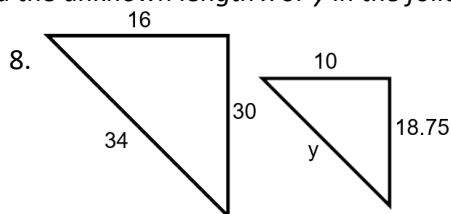4. $\dfrac{9}{5} = \dfrac{12}{3x+2}$

Solve. Show work or full thought process to earn full credit.

5. The ratio of the weight of an object on Earth to the weight of the same object on Pluto is 100 to 3. If an elephant weighs 4100 pounds on Earth, find the elephant's weight on Pluto.

6. There are 110 calories per 177.4 grams of Frosted Flakes cereal. Find how many calories are in 212.5 grams of this cereal. Round to the nearest whole calorie.

7. If a 170-pound person weighs approximately 65 pounds on Mars, about how much does a 9000-pound satellite weigh? Round your answer to the nearest pound.
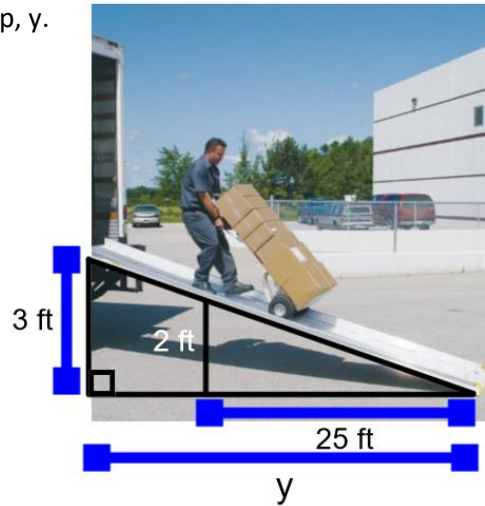
Find the unknown length x or y in the following pairs of similar triangles.

8.

16

30

34

10

18.75

y

9.

8 ft

28 ft

20 ft

y

Solve the following. Show work or your thought process to earn full credit.

10. A human factors expert recommends that there be at least 9 square feet of floor space in a college classroom for every student in the class. Find the minimum floor space that 40 students need.

11. Find the unknown length of the entire base of the ramp, y.

3 ft

2 ft

25 ft

y

Find the slope of the line through each pair of points. Use the slope to determine whether the line is vertical, horizontal, or moves upward or downward from left to right. Show work for full credit.

12. (-2, 5) and (4, -3)   13. (-3, -6) and (1, 5)

14. (3, 7) and (3, -2)   15. (0, -4) and (2, -4)