

7.6 Proportions & Problem Solving DAY ONE CYU Use when you get it right all by yourself**S** Use when you did it all by yourself, but made a silly mistake**H** Use when you could do it alone with a little help from teacher or peer**G** Use when you completed the problem in a group**X** Use when a question was attempted but wrong (get help)**N** Use when a question was not even attempted

CONCEPTS	BASIC	INTERMEDIATE	ADVANCED
Solving proportions	1, 2	3, 4	5 - 8
Solving word problems with proportions			9 - 12
Similar triangles from geometry			

Solve each proportion. Show all work for full credit.

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

2. $\frac{x}{2} = \frac{16}{6}$

3. $\frac{x}{10} = \frac{5}{9}$

4. $\frac{9}{4x} = \frac{6}{2}$

5. $\frac{x+1}{2x+3} = \frac{2}{3}$

6. $\frac{x+1}{x+2} = \frac{5}{3}$

7. $\frac{9}{5} = \frac{12}{3x+2}$

8. $\frac{6}{11} = \frac{27}{3x-2}$

Solve the following real-world scenarios by setting up a proportion first. Show set up and solution with appropriate units to earn full credit.

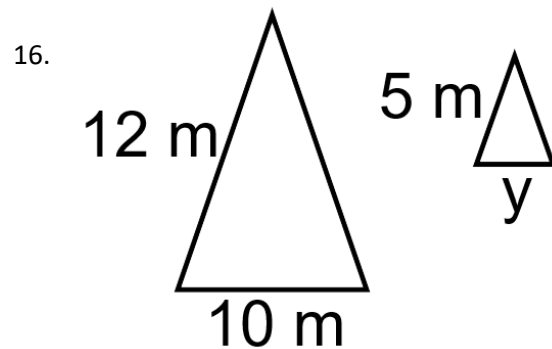
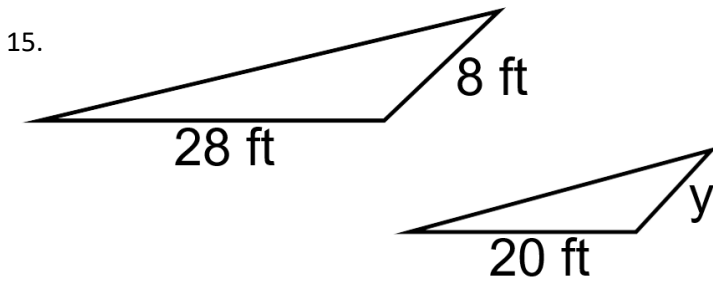
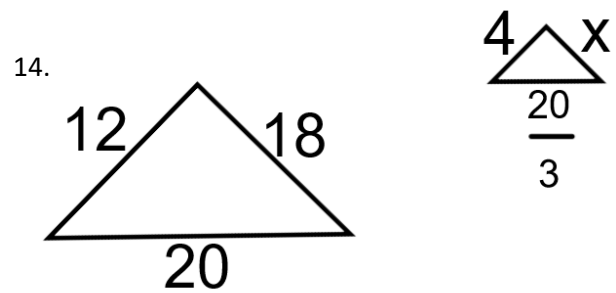
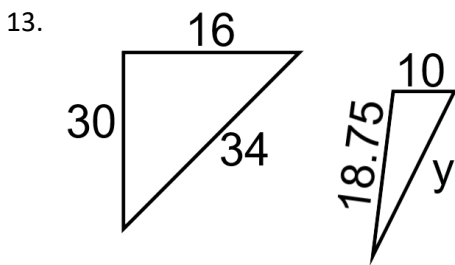
9. The ratio of the weight of an object on Earth to the weight of the same object on Pluto is 100 to 3. If an elephant weighs 4100 pounds on Earth, find the elephant's weight on Pluto.

10. 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.

11. 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.

12. On an architect's blueprint, 1 inch corresponds to 4 feet. Find the length of a wall represented by a line that is $3\frac{7}{8}$ inches long on the blue print.

Find the unknown length x or y in the following pairs of similar triangles. Show the proportional set up and solution to earn full credit.



CYU Reflection: How far can you go: basic, intermediate, or advanced?

Rate your mastery level!

How confident are you with the skills this CYU covered? Circle the score you would give yourself.

1	2	3	4	5	6	7	8
Basic		Intermediate			Advanced		Solved ALL!

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