Name: _____ **Unit 6:** Similar Triangles
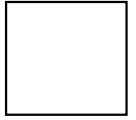
Date: _____ **Per:** _____ **Homework 1:** Ratio & Proportion

Directions: Write the ratio in simplest form.	
1. 28 elementary schools to 16 middle schools	**2.** 30 treadmills to 36 elliptical machines
3. 18 buses to 66 cars	**4.** 180 red marbles to 145 blue marbles
5. The hockey team played 82 regular-season games last year. If they won 44 games, what is the ratio of wins to losses?	**6.** In the word FLASHLIGHT what is the ratio of vowels to total letters?

Directions: Use the given ratios to solve each problem.	
7. The ratio of the measures of two complementary angles is 7:8. What is the measure of the smaller angle?	**8.** The ratio of the measures of the three angles in a triangle is 2:9:4. Find the measures of the angles.
9. The ratio of the measures of the three angles in a triangle is 10:3:7. Find the measure of the largest angle.	**10.** The ratio of the measure of the vertex angle to the base angle of an isosceles triangle is 8:5. Find the measure of the vertex angle.
11. The ratio of the measures of the sides of a triangle is 21:8:14. If the perimeter of the triangle is 215 feet, find the length of each side.	**12.** The ratio of the measures of the sides of a triangle is 4:7:5. If the perimeter of the triangle is 128 yards, find the length of the longest side.

Directions: Solve each proportion.

13. $\dfrac{9}{16} = \dfrac{x}{12}$

14. $\dfrac{x-3}{18} = \dfrac{12}{9}$

15. $\dfrac{7}{11} = \dfrac{18}{x+1}$

16. $\dfrac{3x-4}{14} = \dfrac{9}{10}$

17. $\dfrac{17}{15} = \dfrac{10}{2x-2}$

18. $\dfrac{x-16}{x+6} = \dfrac{3}{5}$

19. $\dfrac{6}{19} = \dfrac{x-12}{2x-2}$

20. $\dfrac{x-9}{15} = \dfrac{2x-9}{10}$

21. $\dfrac{x-9}{3} = \dfrac{56}{x+4}$

22. $\dfrac{7}{x+1} = \dfrac{2x-1}{36}$