Geometry Name: _____

Quiz Review

Ratios, Proportions and Similar Polygons Date: _____ Period: ___

Simplify the ratios. (Don't forget to rewrite the ratio so that the units are the same!)

1. $\frac{8\ yds}{28\ ft}$ = _____

2. $\frac{410cm}{1\ m}$ = _____

3. In regular season games, the Duke University basketball team played 20 games. They won 17 games. Write the ratio of losses to wins.

_____

Solve the proportion.

4. $\frac{8}{b-2} = \frac{2}{b-12}$ b = _____

5. $\frac{x+7}{12} = \frac{x+2}{4}$ x = _____

Answer each question. Write a verbal model, setup the proportion and label your final answer. Round to two decimal places.

6. Burger King sells 50,000 hamburgers per week. For every 25 burgers made, 2 get thrown away either because it was burnt or the wrong topping was added. Approximately how many burgers are thrown away each week?

7. The currency in Tonga is the Pa'anga. the exchange rate is approximately 2 Pa'anga for every $1. At this rate, how many dollars would you get if you exchanged 12 Pa'anga?

Geometry
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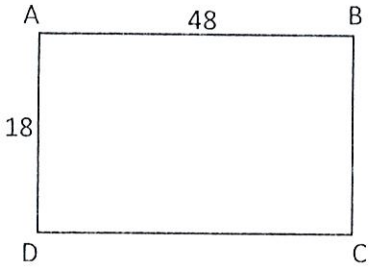
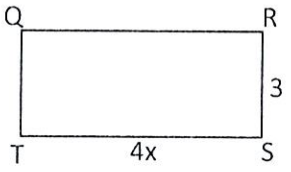
8. Rectangle ABCD ~ QRST. Find the value of x that makes the rectangles similar. *YOU MUST SHOW ALL WORK!*

x = _____





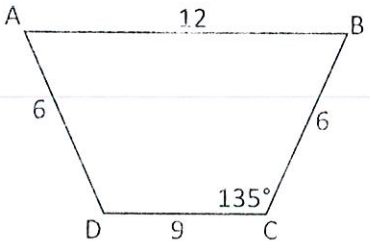
9. The dimensions you are given represent the length and width of three different rectangles. Circle the rectangles which are similar. (Two letters should be circled.) ***You need to show the work for credit.***

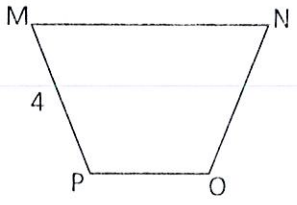
a. 5 in *x* 8 ft

b. $\frac{3}{4}\ ft\ x\ \frac{5}{8}\ ft$

c. 6 cm *x* 5 cm

Given ABCD ~ MNOP





10. m∠N = _____

11. What is the scale factor of ABCD to MNOP? _____

12. Find the perimeter of MNOP. _____

13. Name the side that corresponds with $\overline{MP}$. _____

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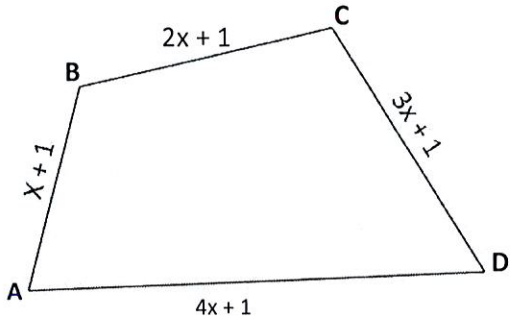
The ratios of the side lengths of ABCD are AB:BC:CD:DA or 3 : 5 : 7 : 9.

14. Find the value of x. **x =** _____



15. Given two quadrilaterals ***ABCD*** and ***WXYZ***, if —— – and the perimeter of ***WXYZ*** is **63**, what is the perimeter of ***ABCD***? ***SHOW ALL WORK!***

Perimeter of *ABCD* = _____

Given the similar polygons, list all the pairs of congruent angles and list all proportional sides (as ratios).

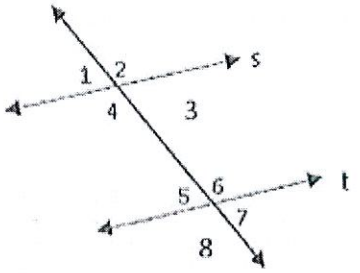
16. **ΔQRS ~ ΔXYZ** _____

17. What is the geometric mean of **12 and 6**.

Find the value of x given that s // t

18. $m\angle 4 = 77°$, $m\angle 8 = 4x + 57$

19. $m\angle 3 = 5x + 13$, $m\angle 5 = 53°$



20. $m\angle 1 = 6x - 5$, $m\angle 7 = 115°$