**Geometry Chapter 7 Practice**

\_\_\_\_ 1. A hockey player made 9 goals in 12 games. What is the ratio of goals to games?

\_\_\_\_ 2. There are 84 boys in a freshman class of 146 students.

What is the ratio of boys to girls?

A. 42:73

B. 31:42

C. 42:31



10

D. 73:42

\_\_\_\_ 3. Given: ∆ABG ~ ∆DCG

GH is an altitude of ∆ABG and GI is an altitude of ∆CDG

Find the measure of *GH*

\_\_\_\_ 4. Given: ∆ABC ~ ∆PQR



Perimeter of ∆PQR = 36, AC = 12, PR = 6

Find the perimeter of ∆ABC



\_\_\_\_ 5. Identify the similar triangles and find x.

Given: ∠C ≅ ∠F and ∠E ≅ ∠A.

\_\_\_\_ 6. Find the value of *y* if lines **a** and **c** are parallel to line **b**.



\_\_\_\_ 7. Find x in each of the following.

\_\_\_\_ 8. Two cabins are located at points A and B on either side of a lake.

AB || CD



Find the distance between the cabins.

\_\_\_\_ 9. Stan is standing 20 feet from a tree trying to pull his kite down from where it is stuck in a branch 12 feet above the ground.



20 ft

8 ft

12 ft

What is the overall height of the tree?

10. Determine whether the pair of triangles are similar.

L

H

S

12

22

30

Show ALL of your work.

If the triangles are similar, state the similarity rule(s) that apply.

A

T

C

4

8

10

11. Find *x* and *y* given that lines *a*, *b*, and *c* are parallel

5x - 7

2x + 14

6 – 3y

2y - 14

a

b

c

s

t

12. Determine which of the triangles are similar.

Justify your answer by showing ALL your work.

Write the similarity statements that apply.

