

Name: _____
Date: _____
Class: _____

Geometry
Unit 4
HW 4-5

- 1) Two triangles are similar with a scale factor of 1:4. If the perimeter of the smaller triangle is 28 what is the perimeter of the larger triangle?

- 2) Two triangles are similar with a scale factor of 2:7. If the area of the larger triangle is 147 what is the area of the smaller triangle?

- 3) Two triangles are similar and have an area ration of 4:25. If the perimeter of the smaller triangle is $4x + 2$ and the perimeter of the larger triangle is $9x + 8$ find the perimeter of each triangle.

- 4) If two similar triangles have the scale factor of 1:3 and the areas are represented by $x + 2$ and $10x + 8$ find the area of each triangle.

- 5) Two triangles are drawn so that $\triangle ABC \cong \triangle DEF$. If the perimeter of ABC is 92, $AB = 3x - 7$, $DF = 2x - 3$, and $BC = x + 12$, what type of triangle is DEF?

- 6) What is the area of the triangle formed by the points $(-2, 1)$, $(8, 5)$, and $(4, -3)$

- 7) If a triangle has a line segment cut through it that is parallel to the opposite side, and the segment cuts one side into two pieces that are 5 and 7, what is the scale factor created for the two triangles that are similar.