

You MUST show work for each problem to receive credit.

#1-2, Write each as a ratio. (1 pt ea.)

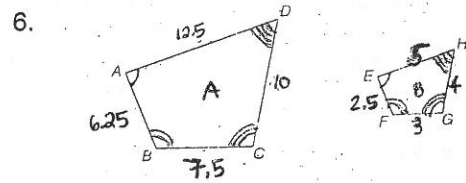
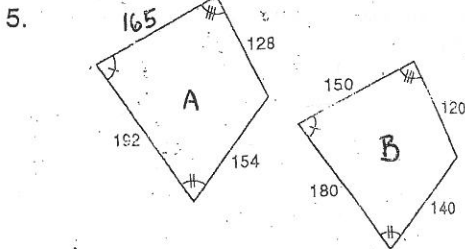
#3-4, Solve each proportion. (2 pt ea)

1. 90 cents: 12 dollars      2. 6 weeks to 1 year

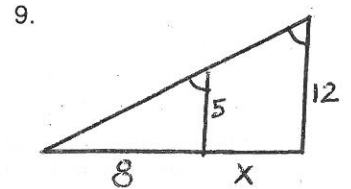
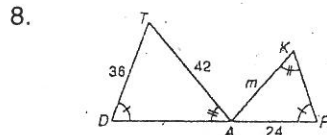
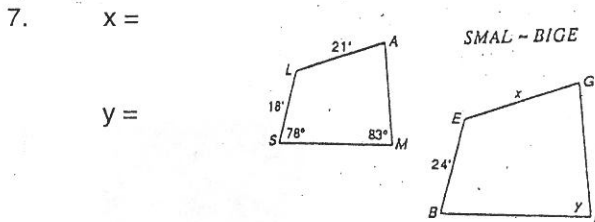
3.  $\frac{y}{25} = \frac{8}{y}$

4.  $\frac{6}{w+2} = \frac{w+1}{w}$

#5-6, Are the two polygons similar? If so, what is the scale factor of A to B? (3 pt)



#7-10, The two polygons are similar. Solve for the indicated variable(s). (2 pt. each)



11. What is the Geometric mean of: 5, 10, 3, 8 and 5?

12. On the blueprints of Mrs. Brown's new Hawaiian home, 3.25 centimeters represents 4 feet. What will the dimensions of a room be if they are 15 cm, by 9.75 cm, on blueprint? (2 pt)

#13-16,  $\Delta ABC \sim \Delta DEF$ . Decide whether each statement is true. A diagram will help. (1 pt)

13.  $\frac{AB}{DE} = \frac{AC}{DF}$

14.  $\angle B \cong \angle E$

15.  $\frac{AB}{DE} = \frac{EF}{BC}$

16.  $\frac{DF}{AC} = \frac{EF + DE + DF}{BC + AB + AC}$