Honors Geometry – Chapter 7 Review

Solve each proportion:

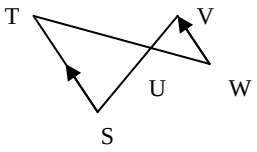
1. $\frac{4}{5} = \frac{x}{9}$

2. $\frac{x-2}{3} = \frac{12}{17}$

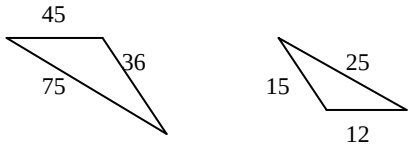
3. $\frac{3x-1}{2x+4} = \frac{4}{5}$

4. Determine if the triangles are similar & state the reason:

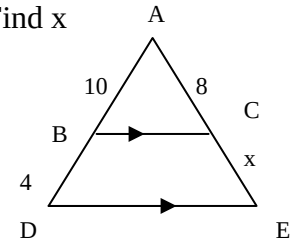
a)



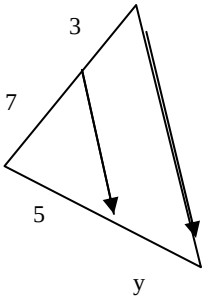
b)



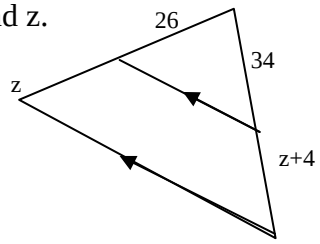
5. Find x



6. Find y.



7. Find z.



8. Use the figure to write the ratios:

a) $\frac{AB}{CB} =$

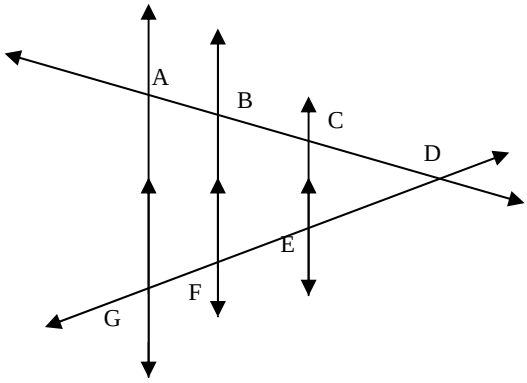
b) $\frac{AB}{BD} =$

c) $\frac{GF}{GE} =$

d) $\frac{CD}{AD} =$

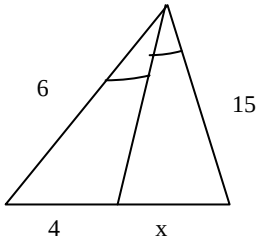
e) $\frac{GF}{ED} =$

f) $\frac{DE}{GF} =$

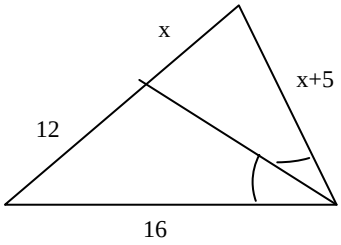


9. Find x

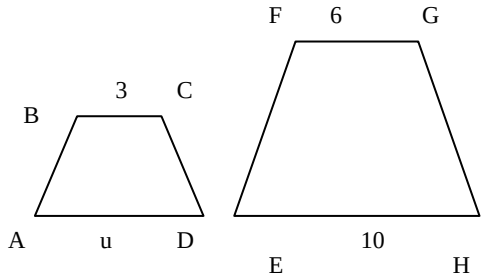
a)



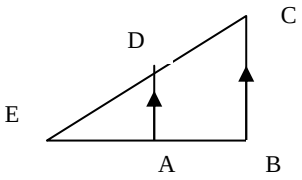
b)



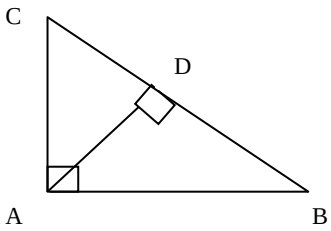
10. a) Find the scale factor
    b) Find u.
    c) If the perimeter of ABCD = 50,?
       what is the perimeter of EFGH



11. Given: ABCD is a trapezoid with AD and BC as bases
    Prove: $\Delta EAD \sim \Delta EBC$



12. Given: Δ CAB is a rt triangle AD is altitude
    Prove: $\Delta ABC \sim \Delta DAC$



Answers:

1. 7.2 2. x = 4.12 3. x = 3
4. a) yes AAA b) yes SSS
5. 3.2 6. 2.14 7. 13
8. a) GF/FE b) GF/FD c) AB/AC d) ED/GD e) AB/CD f) DC/BA
9. a) 10 b) 15
10. a) ½ b) 5 c) 100
11.

Statements	Reasons
1) ----	1) Given
2) $\overline{AD} \parallel \overline{BC}$	2) Defn of Trapezoid
3) $\angle EDA \cong \angle ECB$	3) Corresp angles
4) $\angle E \cong \angle E$	4) Reflexive
5) $\Delta EAD \sim \Delta EBC$	5) AA

12.

Statements	Reasons
1) ----	1) Given
2) $AD \perp CB$	2) Defn of altitude
3) $\angle ADC$ is a rt angle	3) Defn of perpendicular
4) $\angle ADC \cong \angle CAB$	4) All rt angles are congruent
5) $\angle C \cong \angle C$	5) Reflexive
6) $\Delta ABC \sim \Delta DAC$	6) AA