

Geometry Ch. 8-9A HW #3: Handout

1.  $\frac{QR}{XY} = \frac{RS}{YZ} = \frac{QS}{XZ}$

3.  $\triangle RST$

4.  $\triangle JKL$

5.  $x = 4$

6.  $x = 6$

7.  $\frac{12}{18} = \frac{10}{15} = \frac{8}{12} = \frac{2}{3}$

9. similar;  $\triangle DEF \sim \triangle WXY$ ;  $\frac{4}{3}$

10. not similar

13.  $\frac{HG}{HF} = \frac{HJ}{HK} = \frac{GJ}{FK}$ ,

so  $\triangle GHJ \sim \triangle FHK$ . **by SSS ~**

14.  $\angle ACB \cong \angle DCE$  and  $\frac{CE}{CB} = \frac{DC}{AC}$ ,

so  $\triangle ABC \sim \triangle DEC$ . **by SAS ~**

15.  $\angle X \cong \angle D$  and  $\frac{XY}{DJ} = \frac{XZ}{DG}$ ,

so  $\triangle XYZ \sim \triangle DJG$ . **by SAS ~**

16.  $\frac{RS}{UV} = \frac{RQ}{UT} = \frac{QS}{TV}$ ,

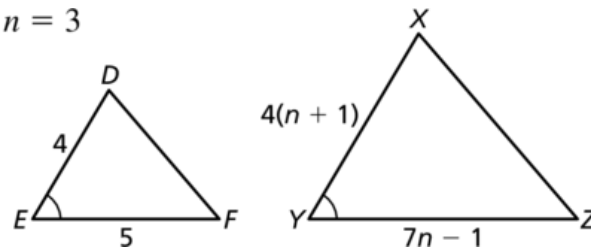
so  $\triangle QRS \sim \triangle TUV$ . **by SSS ~**

17. 24, 26

18. 30, 36

19. Because  $\overline{AB}$  corresponds to  $\overline{RQ}$  and  $\overline{BC}$  corresponds to  $\overline{QP}$ , the similarity should be  $\triangle ABC \sim \triangle RQP$

20.  $n = 3$



28. The  $\triangle$  with sides 3,3,5.25 and 4,4,7 are similar.

30. No, draw a counterexample

3) yes, by AA~  
 $\triangle FGH \sim \triangle KLJ$

5) no, angles not  $\cong$

8.  $\angle Q \cong \angle MPN$   
and  $\angle N \cong \angle N$   
so  $\triangle LNQ \sim \triangle MNP$ .  
by AA~

20) The side of the larger  $\triangle$  is 9, not 5.  $x = 13.5$

21)  $WX = 78$  m