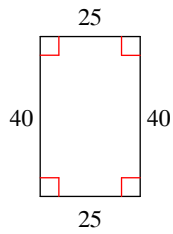
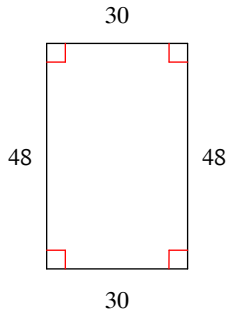


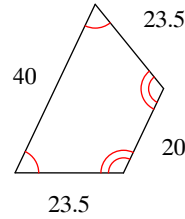
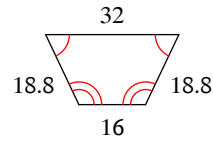
Chapter 9: Similarity

State if the polygons are similar.

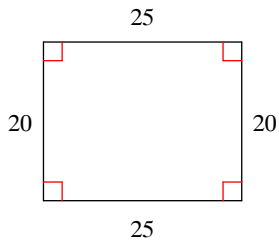
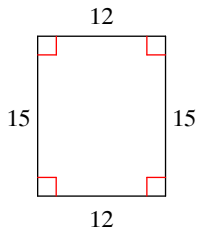
1)



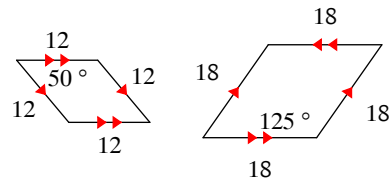
2)



3)

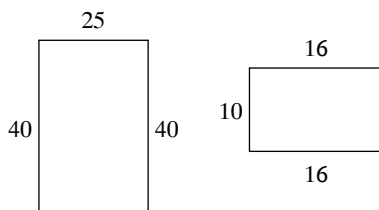


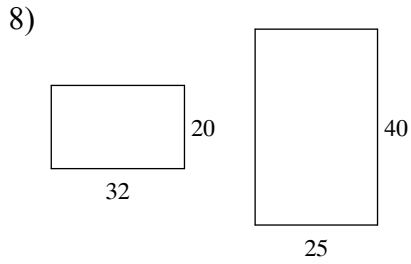
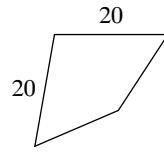
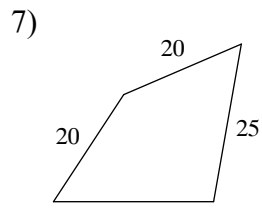
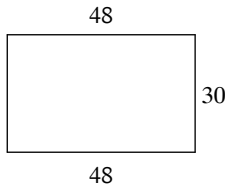
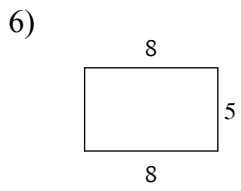
4)



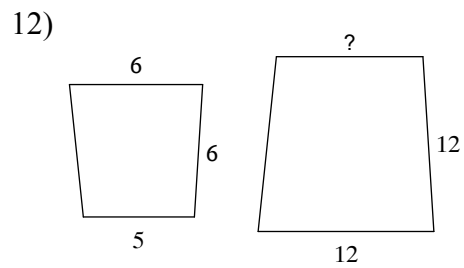
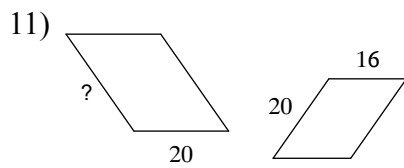
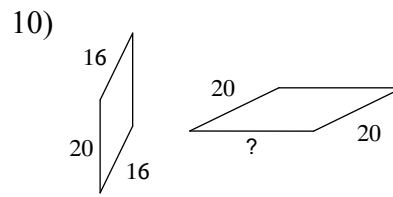
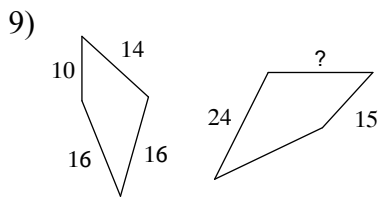
The polygons in each pair are similar. Find the scale factor of the smaller figure to the larger figure.

5)

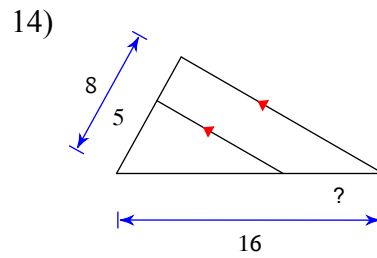
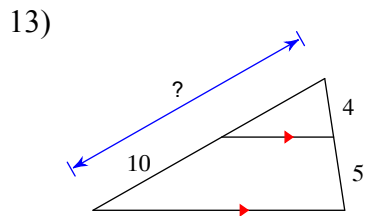




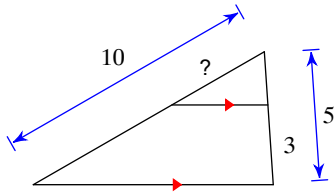
The polygons in each pair are similar. Find the missing side length.



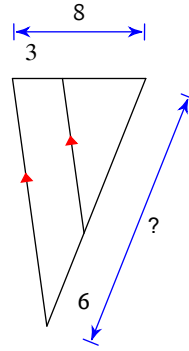
Find the missing length indicated.



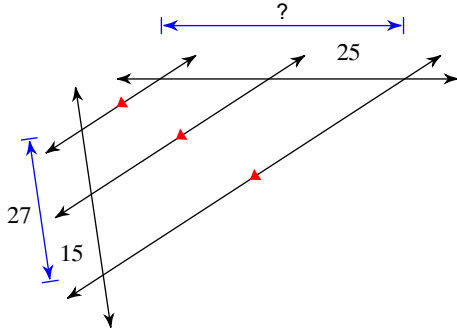
15)



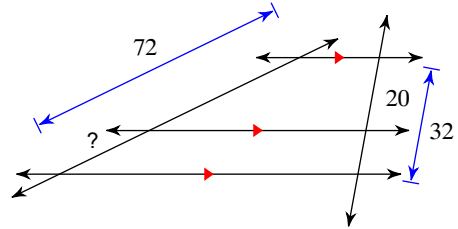
16)



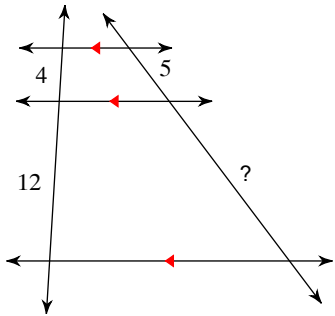
17)



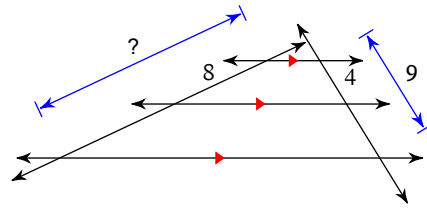
18)



19)

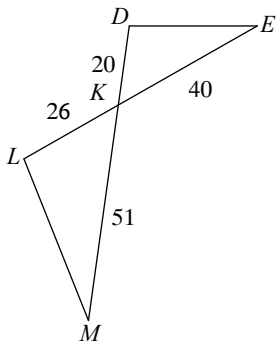


20)



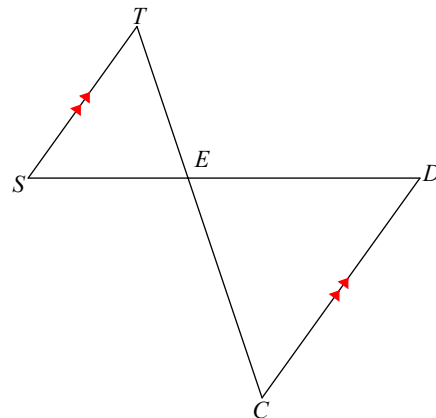
**State if the triangles in each pair are similar. If so, state how you know they are similar and complete the similarity statement.**

21)



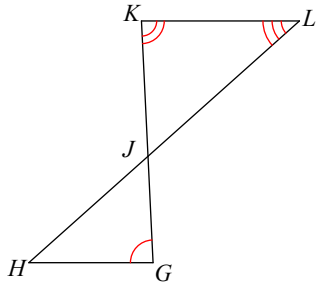
$\triangle KLM \sim \underline{\hspace{2cm}}$

22)



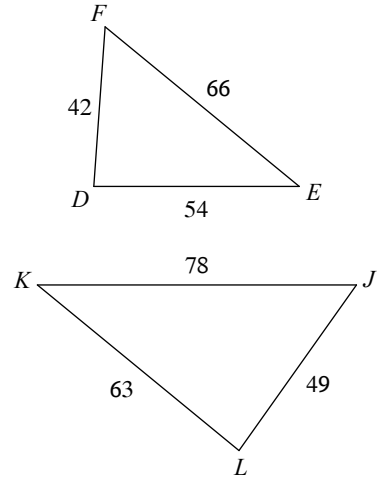
$\triangle EDC \sim \underline{\hspace{2cm}}$

23)



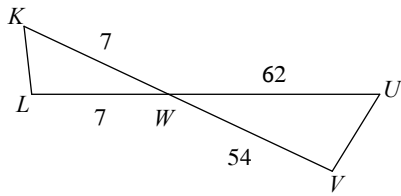
$\triangle JKL \sim$  \_\_\_\_\_

24)



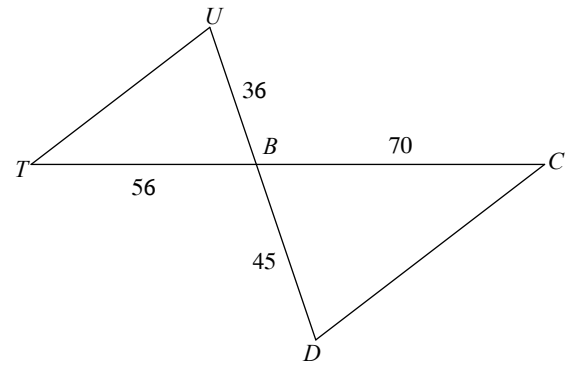
$\triangle JKL \sim$  \_\_\_\_\_

25)



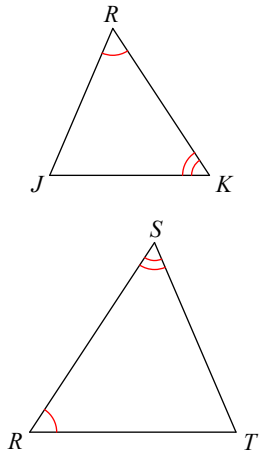
$\triangle WVU \sim$  \_\_\_\_\_

26)



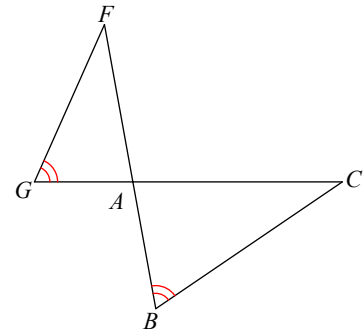
$\triangle BCD \sim$  \_\_\_\_\_

27)



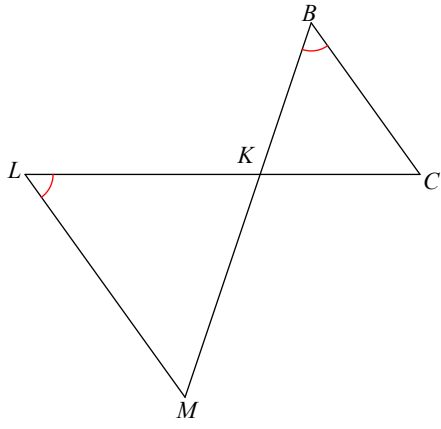
$\triangle RST \sim$  \_\_\_\_\_

28)



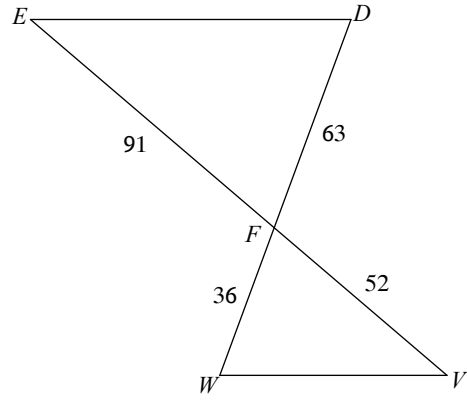
$\triangle ABC \sim$  \_\_\_\_\_

29)



$\triangle KLM \sim$  \_\_\_\_\_

30)



$\triangle FED \sim$  \_\_\_\_\_

## Answers to Chapter 9: Similarity (ID: 1)

- |   |   |  |                 |
|---|---|--|-----------------|
| 1) similar                                  | 2) similar                                  | 3) similar                                   | 4) not similar  |
| 5) 2 : 5                                    | 6) 1 : 6                                    | 7) 4 : 5                                     | 8) 4 : 5        |
| 9) 21                                       | 10) 25                                      | 11) 25                                       | 12) 10          |
| 13) 18                                      | 14) 6                                       | 15) 4  | 16) 16          |
| 17) 45                                      | 18) 27                                      | 19) 15                                       | 20) 18          |
| 21) not similar                             | 22) similar; AA similarity; $\triangle EST$ |  | 23) not similar |
| 24) not similar                             | 25) not similar                             | 26) similar; SAS similarity; $\triangle BTU$ |                 |
| 27) similar; AA similarity; $\triangle RKJ$ |   | 28) similar; AA similarity; $\triangle AGF$  |                 |
| 29) similar; AA similarity; $\triangle KBC$ |   | 30) similar; SAS similarity; $\triangle FVW$ |                 |