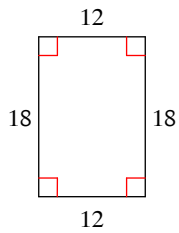
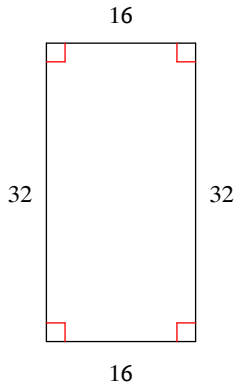


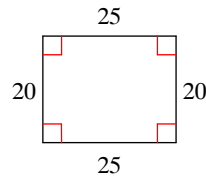
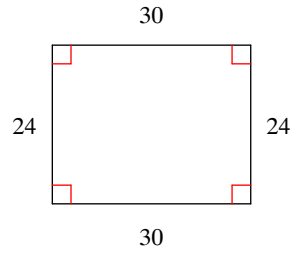
Chapter 9: Similarity

State if the polygons are similar.

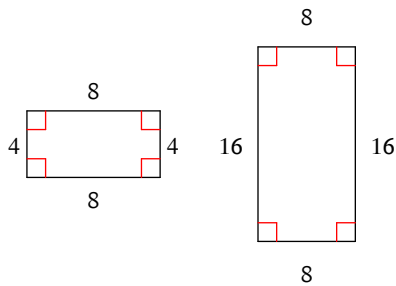
1)



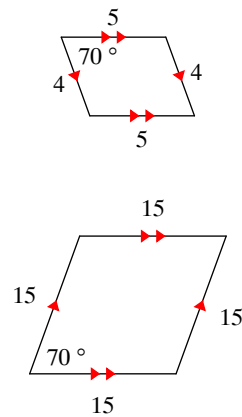
2)



3)

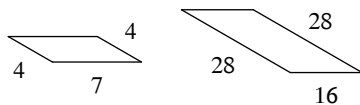


4)

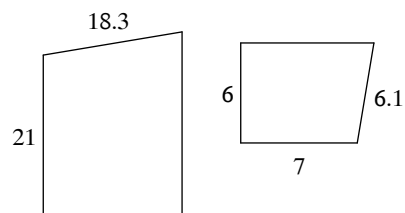


The polygons in each pair are similar. Find the scale factor of the smaller figure to the larger figure.

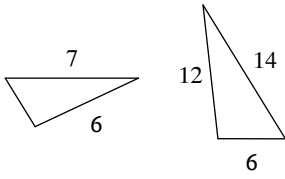
5)



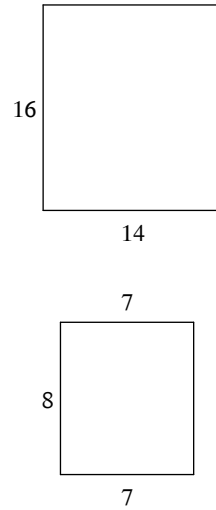
6)



7)

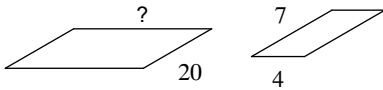


8)

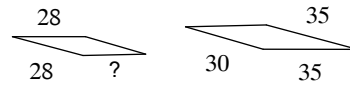


The polygons in each pair are similar. Find the missing side length.

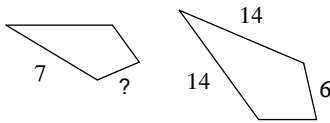
9)



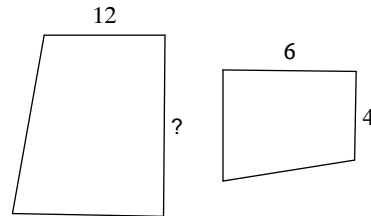
10)



11)

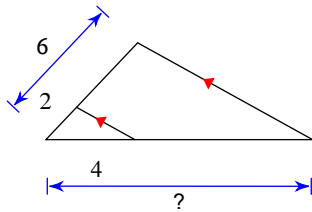


12)

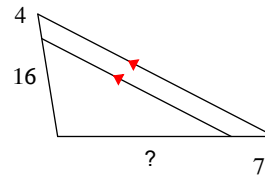


Find the missing length indicated.

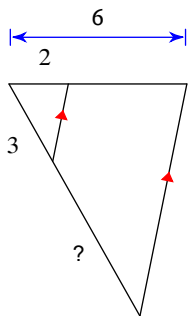
13)



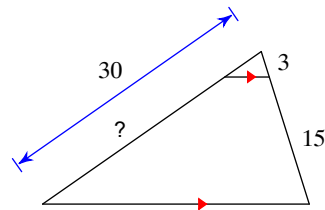
14)



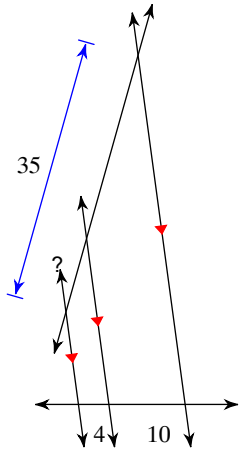
15)



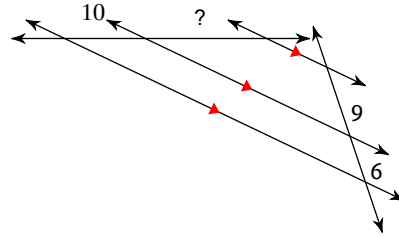
16)



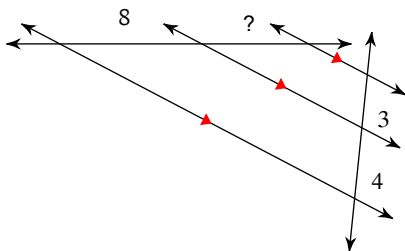
17)



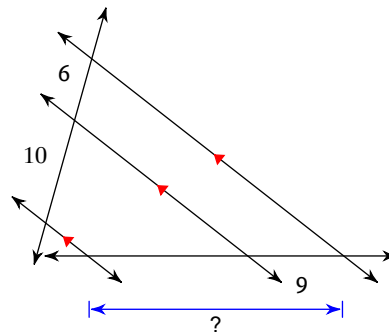
18)



19)

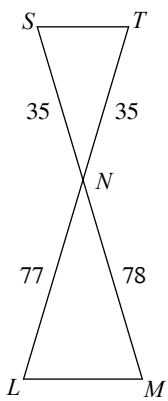


20)



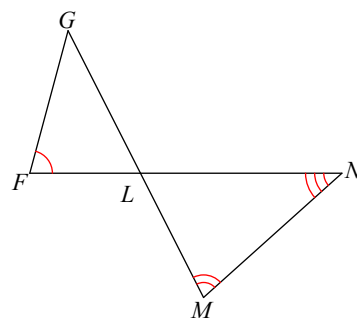
State if the triangles in each pair are similar. If so, state how you know they are similar and complete the similarity statement.

21)



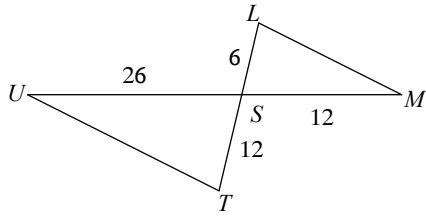
$\triangle NML \sim \underline{\hspace{2cm}}$

22)



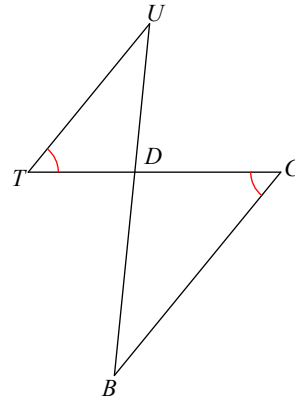
$\triangle LMN \sim \underline{\hspace{2cm}}$

23)



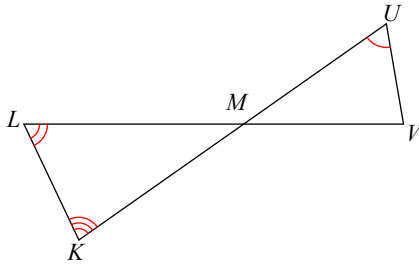
$\triangle STU \sim$ _____

24)



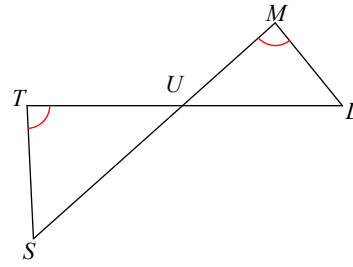
$\triangle DCB \sim$ _____

25)



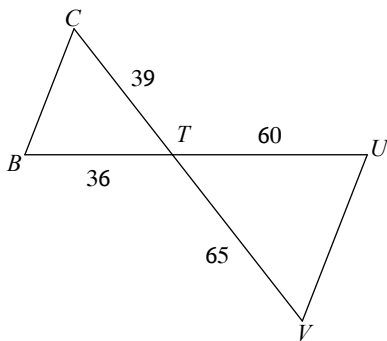
$\triangle MLK \sim$ _____

26)



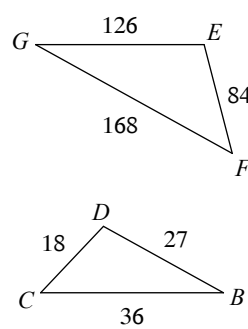
$\triangle UTS \sim$ _____

27)



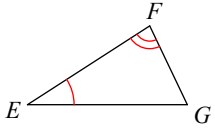
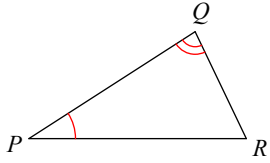
$\triangle TUV \sim$ _____

28)



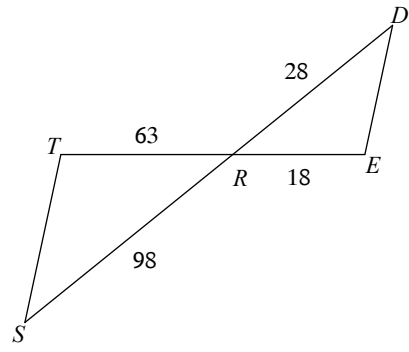
$\triangle GFE \sim$ _____

29)



$\triangle PQR \sim$ _____

30)



$\triangle RST \sim$ _____

Answers to Chapter 9: Similarity (ID: 2)

- | | | | |
|--|-----------------|--|----------------|
| 1) not similar | 2) similar | 3) similar | 4) not similar |
| 5) 1 : 4 | 6) 1 : 3 | 7) 1 : 2 | 8) 1 : 2 |
| 9) 35 | 10) 24 | 11) 3 | 12) 18 |
| 13) 12 | 14) 28 | 15) 6 | 16) 25 |
| 17) 10 | 18) 15 | 19) 6 | 20) 24 |
| 21) not similar | 22) not similar | 23) not similar | |
| 24) similar; AA similarity; $\triangle DTU$ | | 25) not similar | |
| 26) similar; AA similarity; $\triangle UML$ | | 27) similar; SAS similarity; $\triangle TBC$ | |
| 28) similar; SSS similarity; $\triangle BCD$ | | 29) similar; AA similarity; $\triangle EFG$ | |
| 30) similar; SAS similarity; $\triangle RDE$ | | | |