Geometry Name_____

Chapter 7: Review of Some Topics

Date_____ Period____

Solve each proportion.

1) $\frac{n}{9} = \frac{n+3}{7}$

2) $\frac{3}{a} = \frac{5}{a-3}$

3) $\frac{x-4}{x} = \frac{6}{3}$

4) $\frac{8}{v} = \frac{2}{v+3}$

5) $\frac{x+2}{4} = \frac{x+9}{9}$

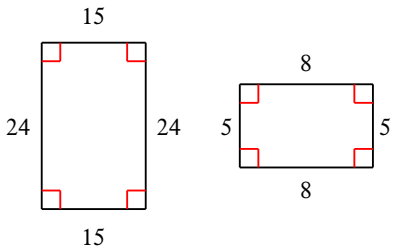
6) $\frac{7}{2} = \frac{k-7}{k+1}$

7) $\frac{2}{n-3} = \frac{7}{n-5}$

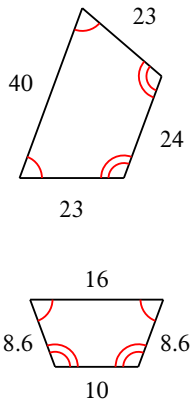
8) $\frac{p-10}{3} = \frac{p+8}{7}$

State if the polygons are similar. Explain how you know.

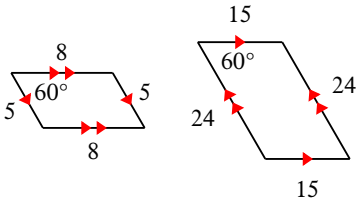
9)



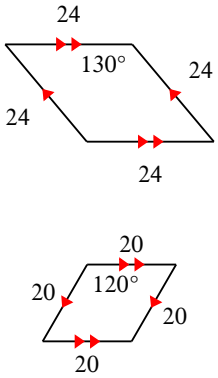
10)



11)

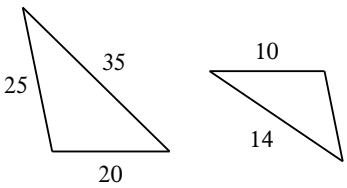


12)



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

13)



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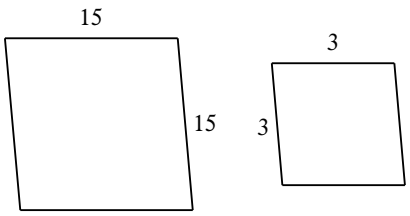

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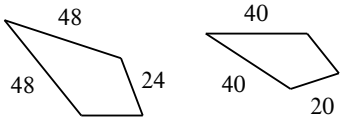
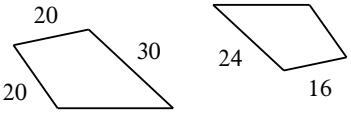
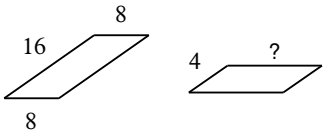


16)

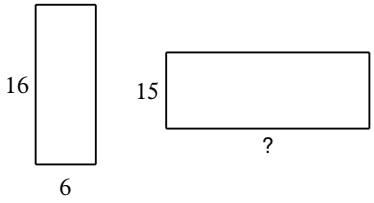


The polygons in each pair are similar. Find the missing side length.

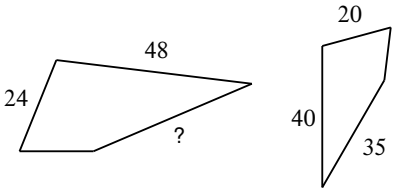
17)



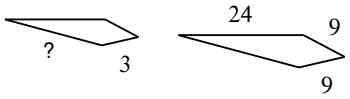
18)



19)

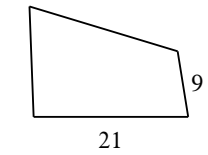


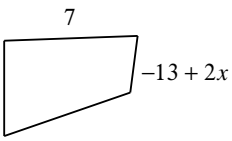
20)



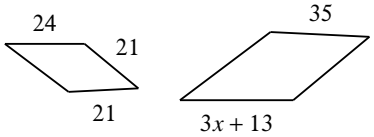
Solve for *x*. The polygons in each pair are similar.

21)

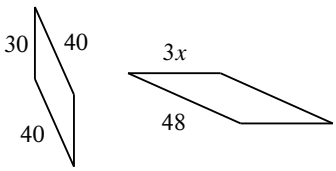




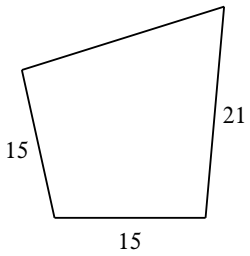
22)

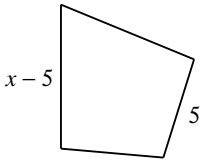


23)



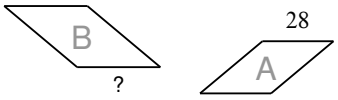
24)





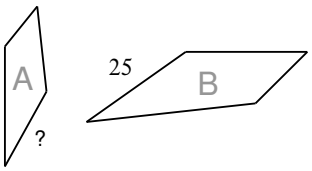
The polygons in each pair are similar. Find the missing side length.

25)



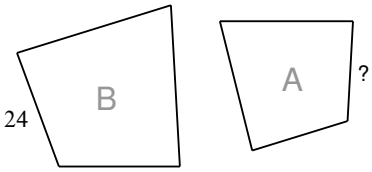
scale factor from A to B = 4 : 5

26)



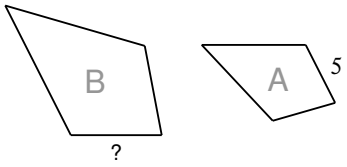
scale factor from A to B = 4 : 5

27)



scale factor from A to B = 1 : 4

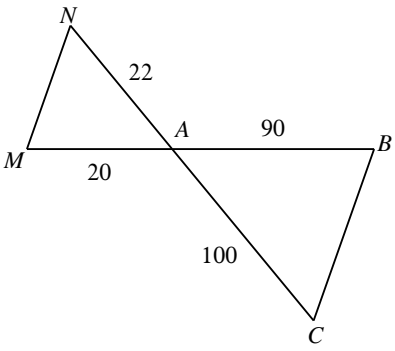
28)



scale factor from A to B = 1 : 2

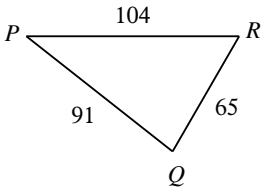
State if the triangles in each pair are similar. If so, state how you know they are similar and complete the similarity statement.

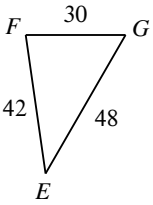
29)



$\Delta ABC \sim$ _____

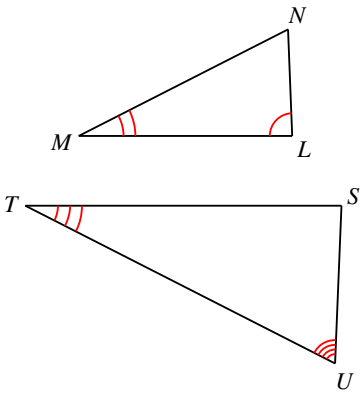
30)





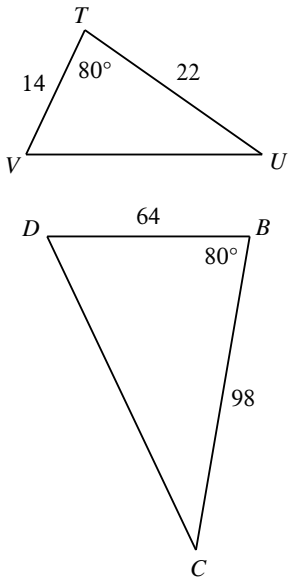
$\Delta PQR \sim$ _____

31)



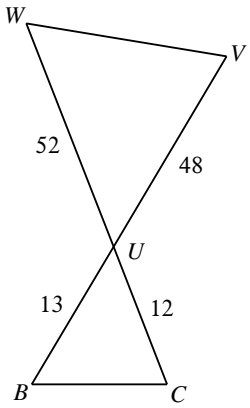
$\Delta STU \sim$ _____

32)



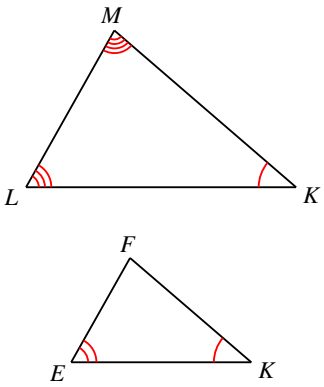
$\Delta BCD \sim$ _____

33)



$\Delta UVW \sim$ _____

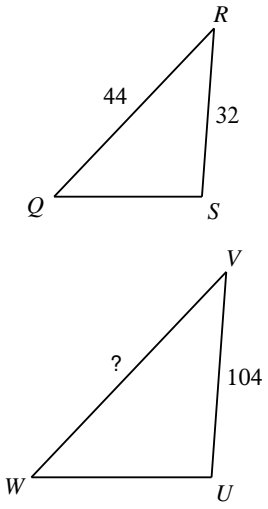
34)



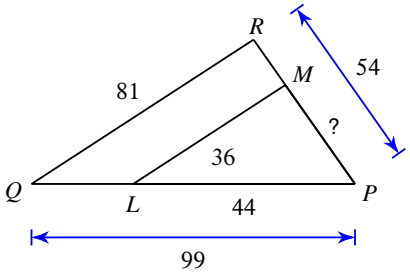
$\Delta KLM \sim$ _____

Find the missing length. The triangles in each pair are similar.

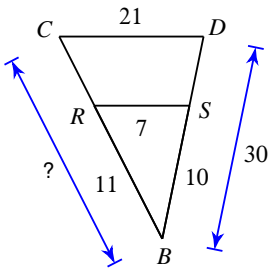
35)



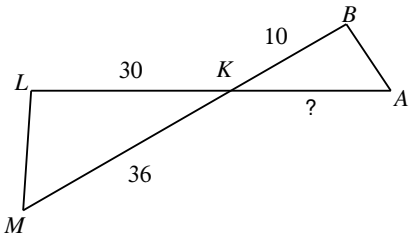
36)



37)

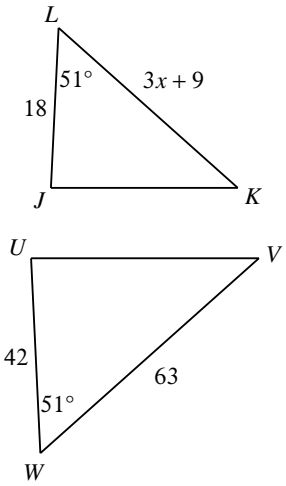


38)

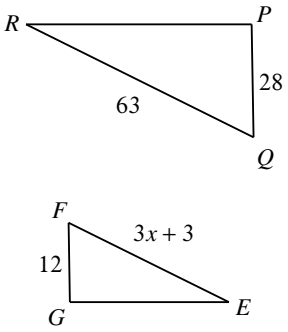


Solve for *x*. The triangles in each pair are similar.

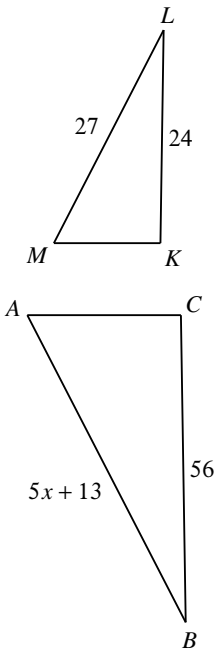
39)



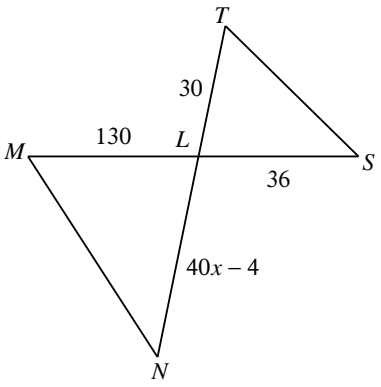
40)



41)

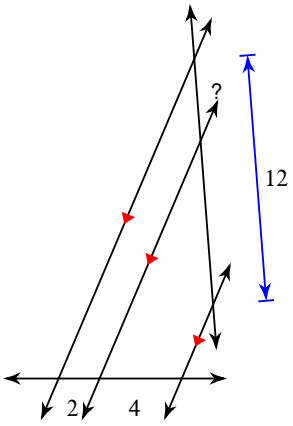


42)

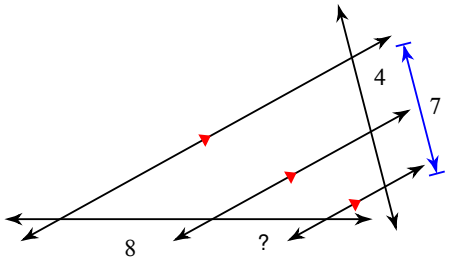


Find the missing length indicated.

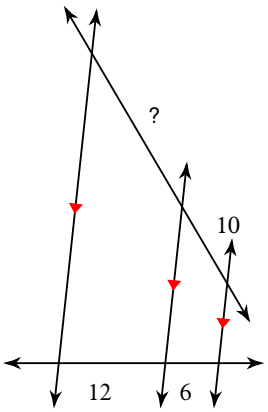
43)



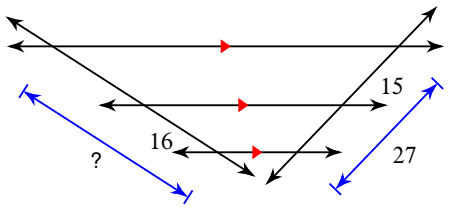
44)



45)

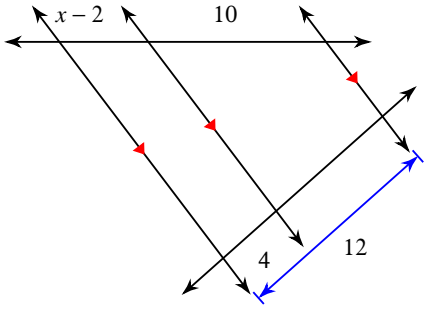


46)

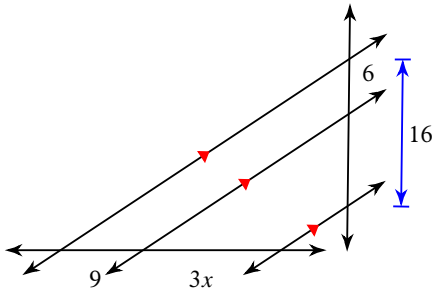


Solve for x.

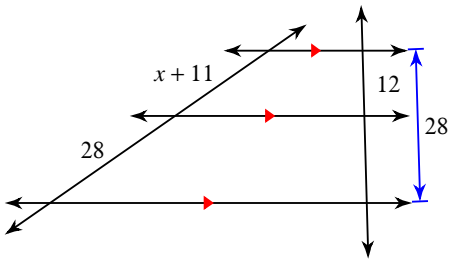
47)



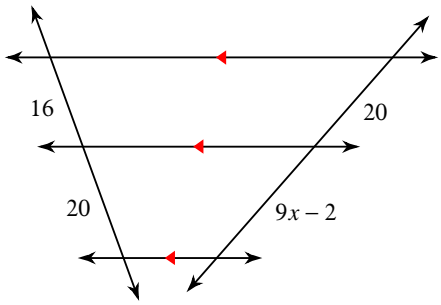
48)



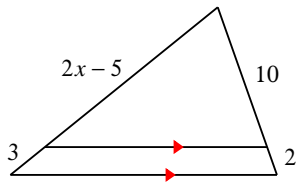
49)



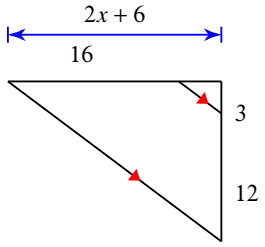
50)



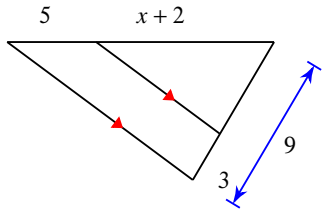
51)



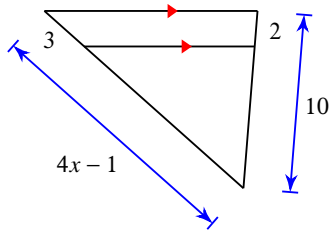
52)



53)



54)



Answers to Chapter 7: Review of Some Topics

1) $\left\{-\frac{27}{2}\right\}$
2) $\left\{-\frac{9}{2}\right\}$
3) $\{-4\}$
4) $\{-4\}$
5) $\left\{\frac{18}{5}\right\}$
6) $\left\{-\frac{21}{5}\right\}$
7) $\left\{\frac{11}{5}\right\}$
8) $\left\{\frac{47}{2}\right\}$
9) similar
10) not similar
11) similar
12) not similar
13) 2 : 5
14) 1 : 5
15) 5 : 6
16) 4 : 5
17) 8
18) 40
19) 42
20) 8
21) 8
22) 9
23) 12
24) 12
25) 35
26) 20
27) 6
28) 10
29) not similar
30) similar; SSS similarity; ΔEFG
31) not similar
32) not similar
33) similar; SAS similarity; ΔUCB
34) not similar
35) 143
36) 24
37) 33
38) 12
39) 6
40) 8
41) 10
42) 4
43) 4
44) 6
45) 20
46) 36
47) 7
48) 5
49) 10
50) 3
51) 10
52) 7
53) 8
54) 4