**7.1 Similar Polygons Homework Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. Given ABCDE ~ FGHIJ.

A

B

C

D

E

20

9

12

6

8

F

G

H

I

J

10

4.5

6

3

4

List the corresponding sides in the form of ratios. The first has been done for you.

List the congruent angles. The first has been done for you.

Find the scale factor of ABCDE to FGHIJ.

**Are the polygons below similar? Explain why or why not. If so, what is the scale factor from the larger to smaller polygon?**

16

16

16

52

14

20

18

26

30

27

39

78

21

2. 3.

10

10

10

Similar / Not Similar (circle one)

Reason:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Scale factor of larger to smaller: \_\_\_\_\_\_\_\_\_\_\_\_\_

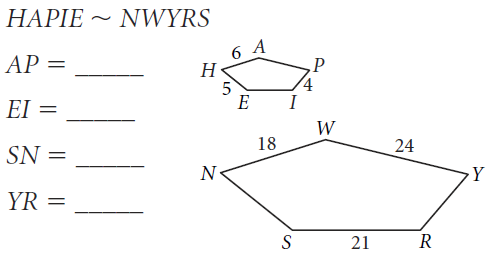
Similar / Not Similar (circle one)

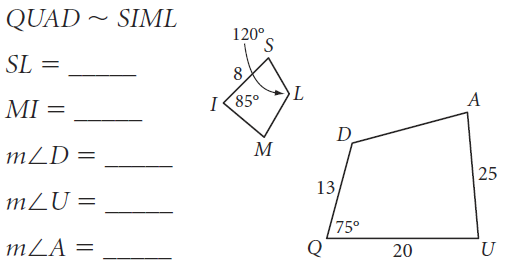
Reason:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Scale factor of larger to smaller: \_\_\_\_\_\_\_\_\_\_\_\_\_

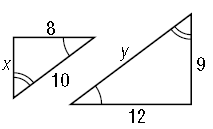
**For #4 and 5, use the similarity statement to find the missing information.**

4. 5.





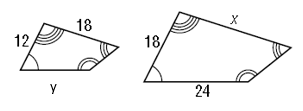
**The polygons below are similar. Solve for the missing variable(s).**

****6.

x = \_\_\_\_\_\_\_\_

y = \_\_\_\_\_\_\_\_

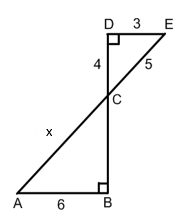
7.



x = \_\_\_\_\_\_\_\_

y = \_\_\_\_\_\_\_\_

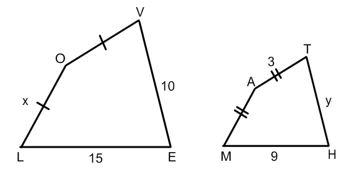
8. In the diagram below, ~.



Scale Factor of ABC to EDC : \_\_\_\_\_\_\_\_

x = \_\_\_\_\_\_\_\_

9. In the diagram below, .



Scale Factor of LOVE to MATH: \_\_\_\_\_\_\_\_\_

x = \_\_\_\_\_\_\_\_

y = \_\_\_\_\_\_\_\_