Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_ Per.: \_\_\_\_\_

**Learning Target:**

-I can solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale. (solve prob)

**1.** Sketch a triangle and a rectangle that is similar, but not identical to the given figures.





1b). How do you know that the figures you drew are similar figures?

**2.** Name all corresponding angles and all corresponding sides in the similar figures below.

G

E

F

C

B

A

|  |  |
| --- | --- |
| Corresponding  angles | Corresponding side lengths |
|  |  |

**3.** The following figures are similar. The larger figure was drawn with a scale factor of 3.

E

36cm

K

L

P

D

15cm

N

M

B

C

A

6 cm

Use scale factor to determine the following side lengths.

Side length KL \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Side Length DC \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**4.** The following rectangles are similar.

7 cm

28 cm

U

V

T

S

R

Q

P

K

10 cm

a). What is the scale factor from rectangle **KPRQ** torectangle **STUV?** \_\_\_\_\_\_\_\_\_\_

b). What is the scale factor from rectangle **STVU** torectangle **KPRQ?** \_\_\_\_\_\_\_\_\_\_

c). What is the length of **SV?** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**5.** Sketch a similar triangle to the one below using a scale factor of 2. Make sure to label your side lengths.

4 in

4.5 in in

2 in