Name __Key__                                                          Hour _____
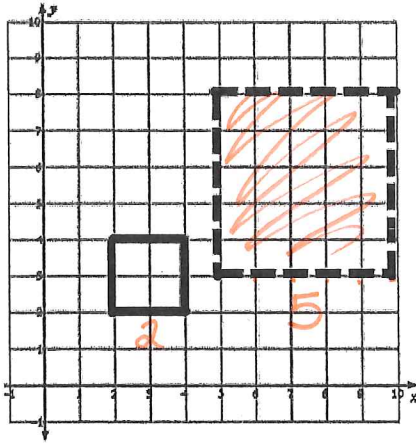
## Dilation and Perimeter Ratio Warm Up

1. Use the dilation below to answer the following questions. The dotted figure is the dilation image.
   a) **Find the scale factor** for the dilation below with the center at the origin.
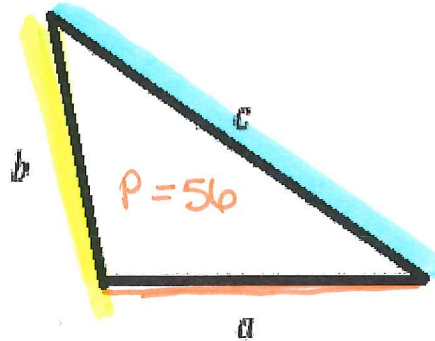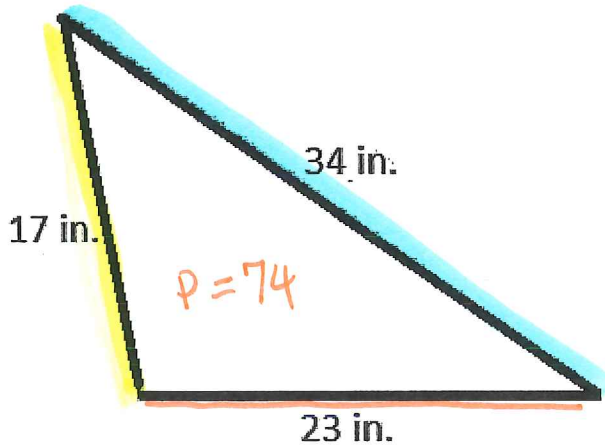
$$\frac{dot}{solid} \quad SF = \frac{5}{2}$$

b) Determine whether the dilation is an **enlargement, reduction, or congruent transformation**.

Classification: __enlargement__



2. Find *a*, *b*, and *c* if the two triangles below are similar and the smaller triangle has a perimeter of 56 inches. Round answers to the nearest tenth if necessary.



34 in.     17 in.     23 in.     P = 74

b     P = 56     c     a

Find a
$$\frac{a}{23} = \frac{56}{74}$$
$$74a = 1288$$
$$\boxed{a = 17.4 \, in}$$

Find b
$$\frac{b}{17} = \frac{56}{74}$$
$$74b = 952$$
$$\boxed{b = 12.9 \, in}$$

Find c
$$\frac{c}{34} = \frac{56}{74}$$
$$74c = 1904$$
$$\boxed{c = 25.7 \, in}$$

a = __17.4 in__
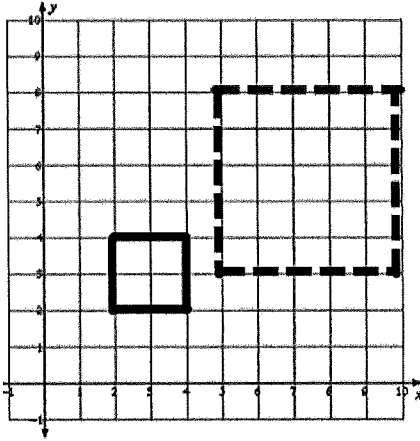b = __12.9 in__
c = __25.7 in__

Name _____          Hour _____

## Dilation and Perimeter Ratio Warm Up

1. Use the dilation below to answer the following questions. The dotted figure is the dilation image.

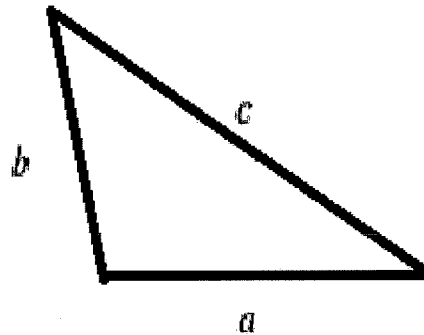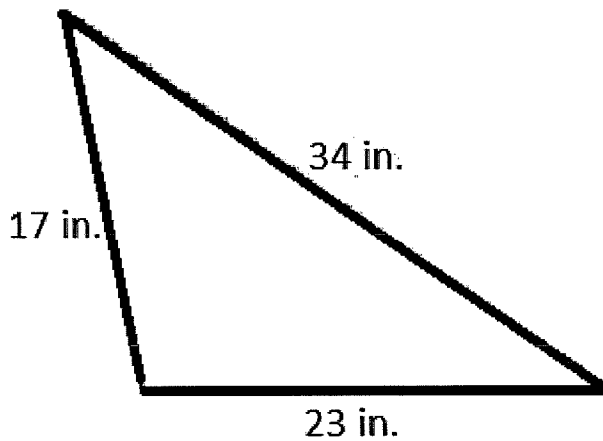   a) **Find the scale factor** for the dilation below with the center at the origin.

   SF = _____

   b) Determine whether the dilation is an **enlargement, reduction, or congruent transformation**.

   Classification: _____



2. Find *a*, *b*, and *c* if the two triangles below are similar and the smaller triangle has a perimeter of 56 inches. Round answers to the nearest tenth if necessary.



17 in.

34 in.

23 in.

*b*

*c*

*a*

a = _____

b = _____

c = _____