

**DO NOW**

If  $\triangle ABC \sim \triangle PQR$ , what is the perimeter of  $\triangle ABC$ ?

$\frac{x}{2} = \frac{10}{8}$   
 $8x = 20$   
 $x = 2.5$

$\frac{y}{6} = \frac{10}{8}$   
 $8y = 60$   
 $y = 7.5$

$P = 2.5 + 2 + 10 = 14.5$

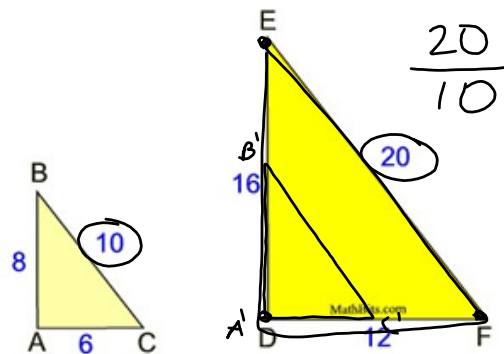
$P = 8 + 6 + 10 = 24$

$P = 6$

Feb 18-10:30 AM

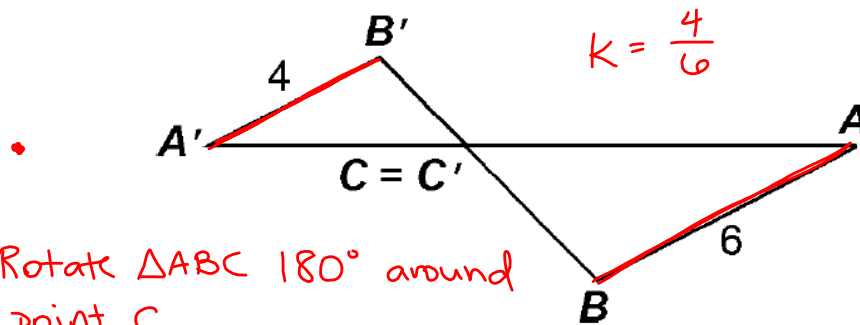
Two geometric figures are **similar** if there is a **similarity transformation** that will map one figure onto the other. This transformation is either a dilation alone or a dilation in combination with one or more rigid motions

To map  $\triangle ABC$  onto  $\triangle DEF$ :  
 Translate  $\triangle ABC$  so that  
 A maps to D  
 Then dilate  $\triangle A'B'C'$   
 centered at D, scale  
 factor  $k = 2$ .



Dec 20-7:34 AM

In the following diagram,  $\triangle ABC \sim \triangle A'B'C'$ . Give a similarity transformation that would map  $\triangle ABC$  onto  $\triangle A'B'C'$



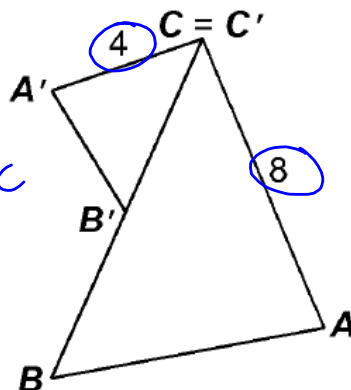
Rotate  $\triangle ABC$   $180^\circ$  around point C.

Then dilate  $\triangle ABC$  centered at C using scale factor  $k = \frac{2}{3}$

Jan 2-8:12 AM

In the following diagram,  $\triangle ABC \sim \triangle A'B'C'$ . Give a similarity transformation that would map  $\triangle ABC$  onto  $\triangle A'B'C'$

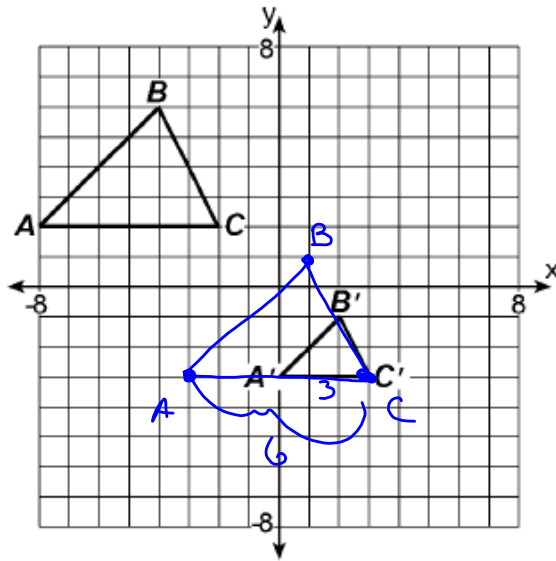
Reflect  $\triangle ABC$  over  $\overline{BC}$   
then dilate  $\triangle ABC$  centered at C using  $k = \frac{1}{2}$



Jan 2-8:25 AM

In the following diagram,  $\triangle ABC \sim \triangle A'B'C'$ . Give a similarity transformation that would map  $\triangle ABC$  onto  $\triangle A'B'C'$

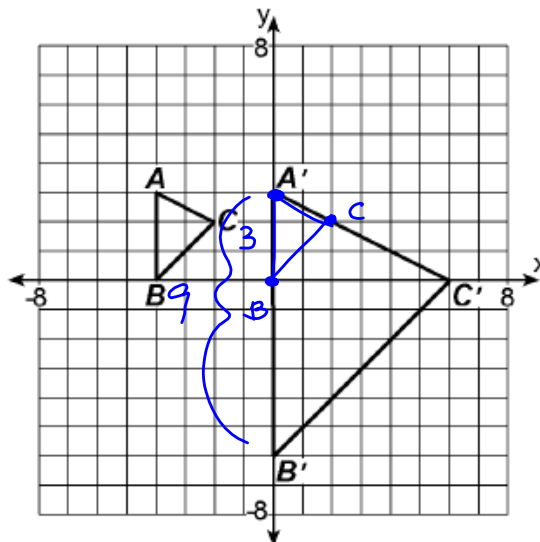
$T_{5, -5}$   
then  
 $D_{C, \frac{1}{2}}$



Dec 20-7:31 AM

In the following diagram,  $\triangle ABC \sim \triangle A'B'C'$ . Give a similarity transformation that would map  $\triangle ABC$  onto  $\triangle A'B'C'$

$T_{4, 0}$   
then  
 $D_{A, 3}$



Jan 2-8:25 AM