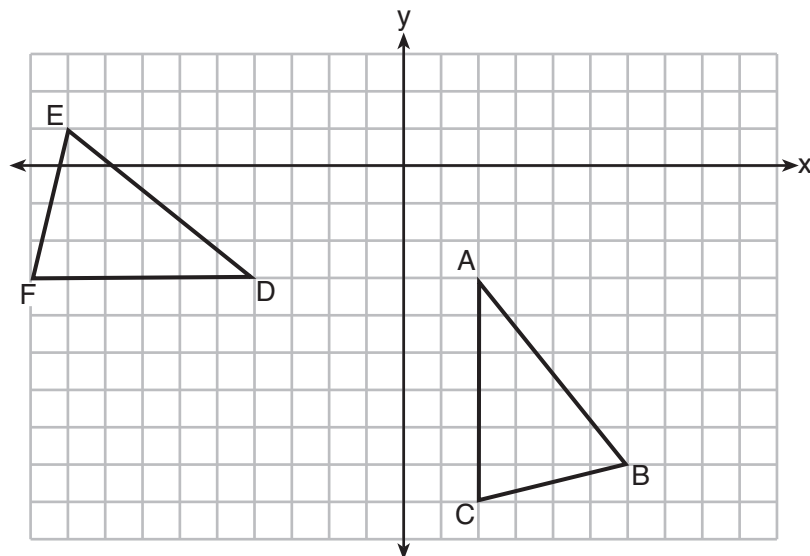


17 February 2017

## Homework: Transformations

1.

The grid below shows  $\triangle ABC$  and  $\triangle DEF$ .



Let  $\triangle A'B'C'$  be the image of  $\triangle ABC$  after a rotation about point A. Determine and state the location of  $B'$  if the location of point  $C'$  is  $(8, -3)$ . Explain your answer.

2.

Line segment  $\overline{A'B'}$ , whose endpoints are  $(4, -2)$  and  $(16, 14)$ , is the image of  $\overline{AB}$  after a dilation of  $\frac{1}{2}$  centered at the origin. What is the length of  $\overline{AB}$ ?

(1) 5

(3) 20

(2) 10

(4) 40

**3.**

Using a compass and straightedge, construct and label  $\triangle A'B'C'$ , the image of  $\triangle ABC$  after a dilation with a scale factor of 2 and centered at  $B$ . [Leave all construction marks.]

