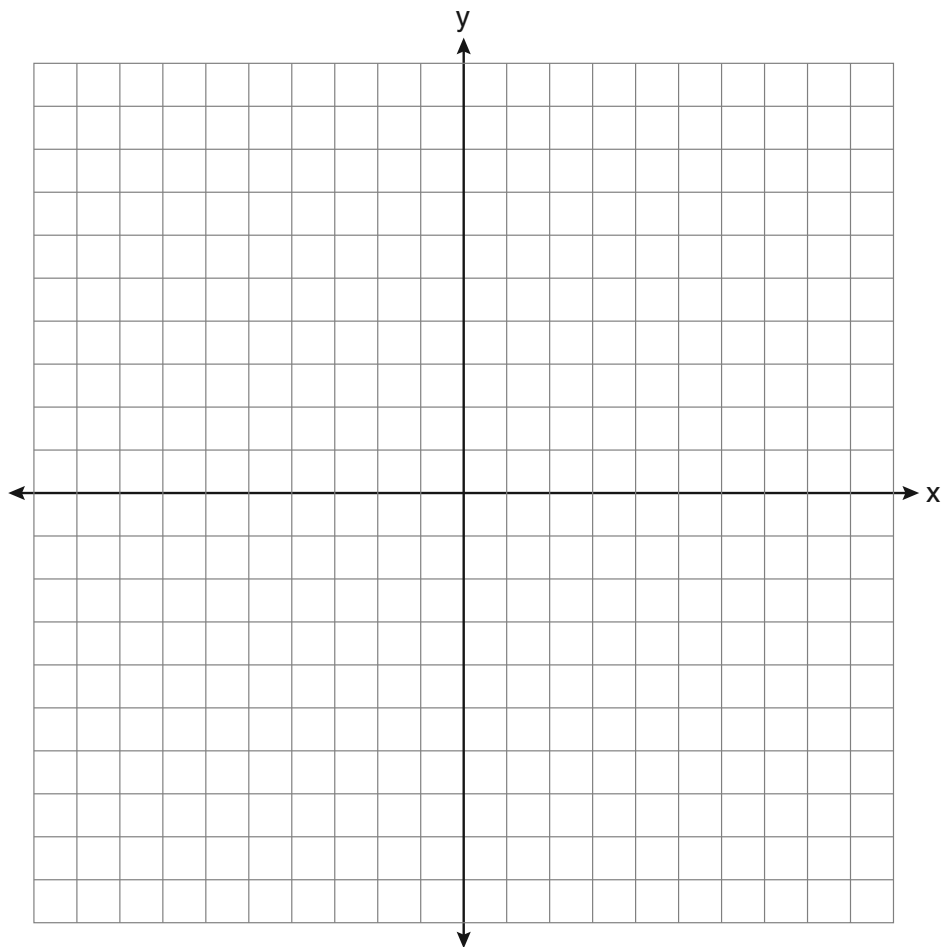


Do Now: Transformations

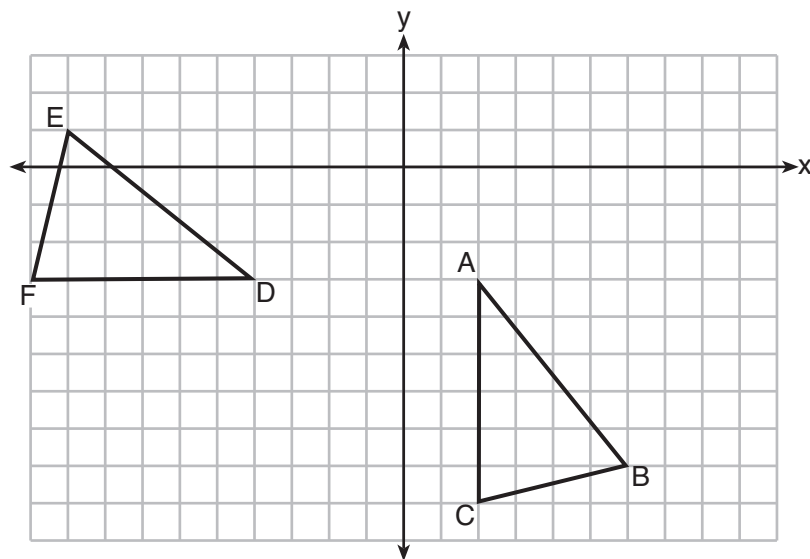
1. Triangle ABC has the vertices A(1,2), B(2,5), and C(7,4). Find the coordinates of $\Delta A'B'C'$, the image of ΔABC under the transformation T-2, -7

Graph and label both triangles. What is the relationship of the lengths of the sides of the two triangles? Justify your answer.



2.

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.

3.

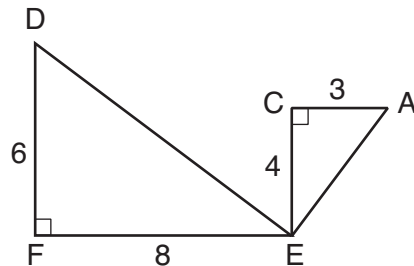
Line segment $A'B'$, whose endpoints are $(4, -2)$ and $(16, 14)$, is the image of \overline{AB} after a dilation of $\frac{1}{2}$ centered at the origin. What is the length of \overline{AB} ?

- | | |
|--------|--------|
| (1) 5 | (3) 20 |
| (2) 10 | (4) 40 |

Classwork: Regents transformations problems

1.

Given: $\triangle AEC$, $\triangle DEF$, and $\overline{FE} \perp \overline{CE}$

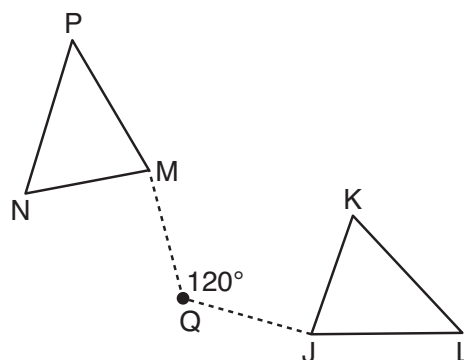


What is a correct sequence of similarity transformations that shows $\triangle AEC \sim \triangle DEF$?

- (1) a rotation of 180 degrees about point E followed by a horizontal translation
- (2) a counterclockwise rotation of 90 degrees about point E followed by a horizontal translation
- (3) a rotation of 180 degrees about point E followed by a dilation with a scale factor of 2 centered at point E
- (4) a counterclockwise rotation of 90 degrees about point E followed by a dilation with a scale factor of 2 centered at point E

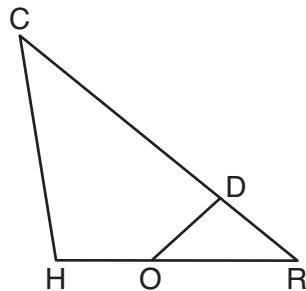
2.

Triangle MNP is the image of triangle JKL after a 120° counterclockwise rotation about point Q . If the measure of angle L is 47° and the measure of angle N is 57° , determine the measure of angle M . Explain how you arrived at your answer.



3.

In triangle CHR , O is on \overline{HR} , and D is on \overline{CR} so that $\angle H \cong \angle RDO$.



If $RD = 4$, $RO = 6$, and $OH = 4$, what is the length of \overline{CD} ?

(1) $2\frac{2}{3}$

(3) 11

(2) $6\frac{2}{3}$

(4) 15