

**Do Now**

Identify the congruent parts of the triangles based on the congruency statement.

1.  $\Delta CDE \cong \Delta FGH$

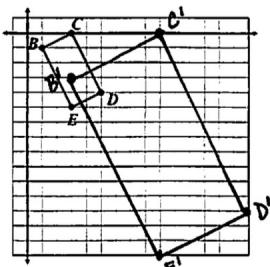
$\angle C \cong \angle F$	$\overline{CD} \cong \overline{FG}$
$\angle D \cong \angle G$	$\overline{DE} \cong \overline{GH}$
$\angle E \cong \angle H$	$\overline{CE} \cong \overline{FH}$

Feb 12-4:18 PM

1)  $W' (6, -4)$  2)  $Q' (-4, 6)$  3)  $k = 4$  4)  $k = 1/3$

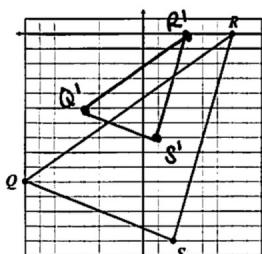
5)  $k = 5 T'(5, -20)$  6)  $k = 3 S'(0, -9)$

7. Graph the image of the rectangle below using a scale factor of  $k = 3$ .



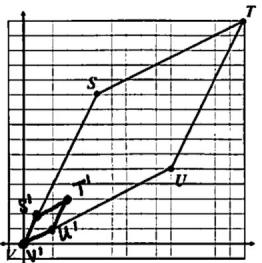
$$\begin{aligned}B' & (3, -3) \\C' & (9, 0) \\D' & (15, -12) \\E' & (9, -15)\end{aligned}$$

8. Graph the image of the triangle below using a scale factor of  $k = 1/2$ .



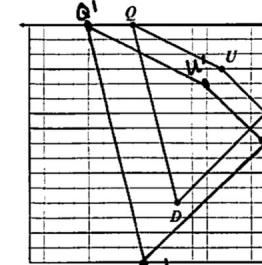
$$\begin{aligned}Q' & (-4, -5) \\R' & (3, 0) \\S' & (1, -1)\end{aligned}$$

9. Graph the image of the rhombus below using a scale factor of  $k = 1/5$ .



$$\begin{aligned}S' & (1, 2) \\T' & (3, 3) \\U' & (2, 1) \\V' & (0, 0)\end{aligned}$$

10. Graph the image of the quadrilateral below using a scale factor of  $k = 4/3$ .



$$\begin{aligned}Q' & (-12, 0) \\U' & (-4, -4) \\A' & (0, -8) \\D' & (-8, -16)\end{aligned}$$

Feb 12-6:52 PM

## Compound Transformations

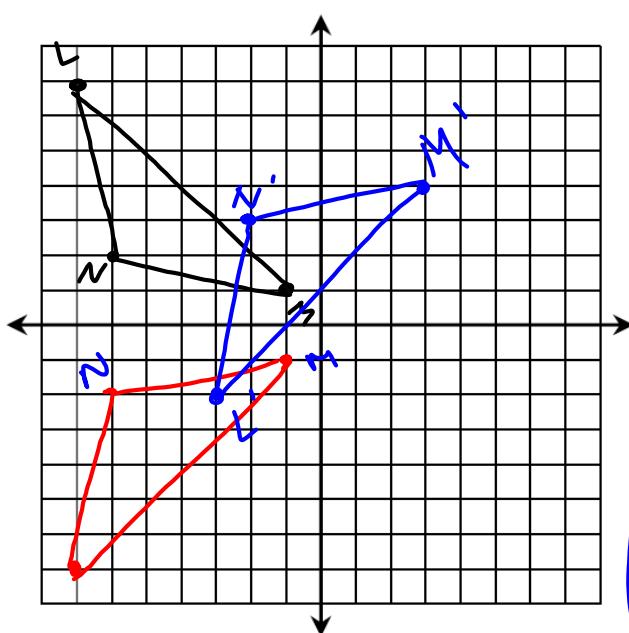
is a combination of two or more transformations (Translation, Reflection, Rotation, or Dilation), each performed on the previous image.

**USE THE IMAGE OF THE FIRST TRANSFORMATION to COMPLETE THE SECOND TRANSFORMATION**

Feb 12-4:55 PM

Triangle  $LMN$  with vertices  $L(-7, 7)$ ,  $M(-1, 1)$ , and  $N(-6, 2)$ :

- (a) reflected in the  $x$ -axis
- (b) translated 5 units up and 4 units right



$$(x, y) \rightarrow (x, -y)$$

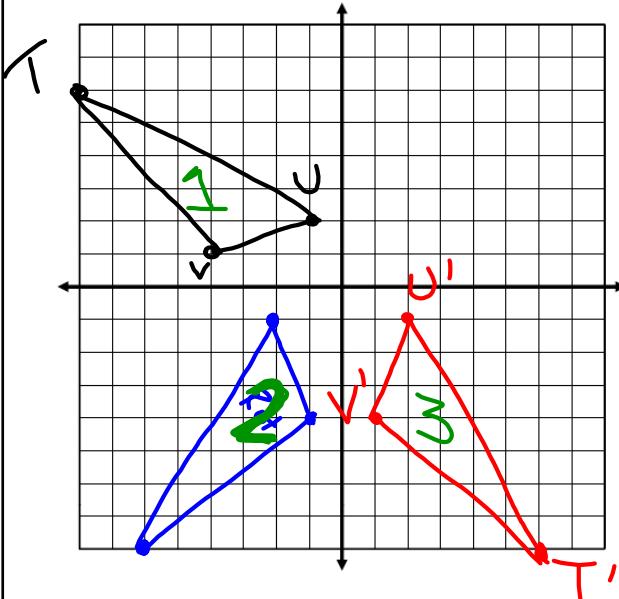
$L'(-3, -2)$
$M'(3, 4)$
$N'(-2, 3)$

Feb 12-10:14 AM

Triangle  $TUV$  with vertices  $T(-8, 6)$ ,  $U(-1, 2)$ , and  $V(-4, 1)$ :

(a) Rotation:  $90^\circ$  counterclockwise

(b) Reflection: in the  $y$ -axis



$$(x, y) \rightarrow (-y, x)$$

$T$	$(-6, -8)$
$U$	$(-2, -1)$
$V$	$(-1, -4)$

$T'$	$(\underline{6}, \underline{-8})$
$U'$	$(\underline{2}, \underline{-1})$
$V'$	$(\underline{1}, \underline{-4})$

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