

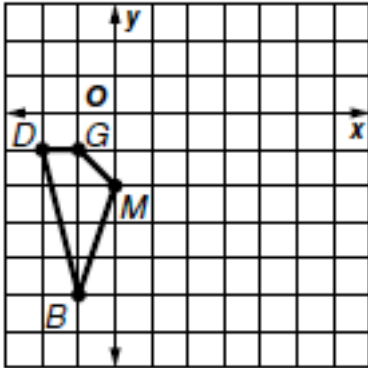
8-2 Translations on the Coordinate Plane

Translation $(x,y) \rightarrow (x + a,y + b)$

Class Notes – a) Find the coordinates of the vertices of each figure after the given translation. Then graph the translated image. b) Answer any questions that follow.

LP#1

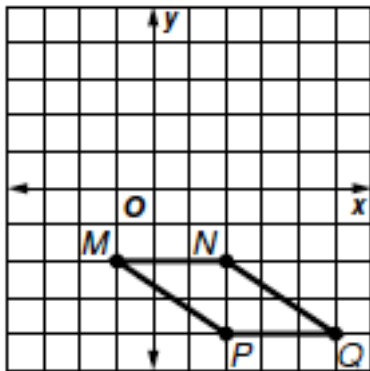
$$(x,y) \rightarrow (x + 5,y + 2)$$



How does the size and shape of the image compare to its pre-image?

LP#2

$$(x,y) \rightarrow (x - 3,y + 4)$$



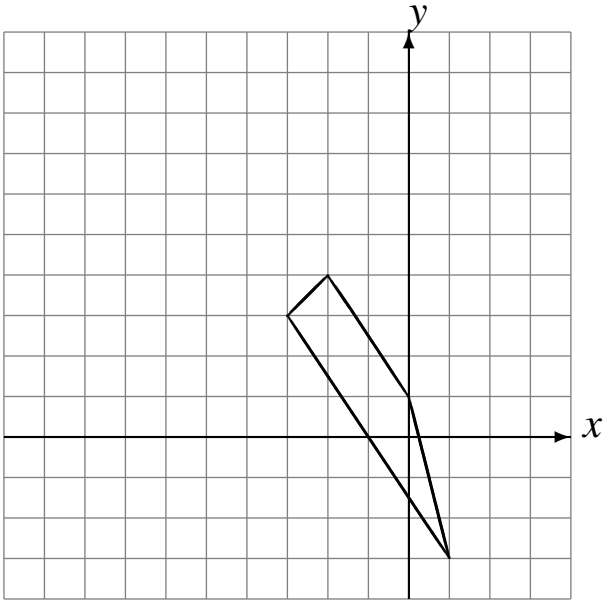
In the pre-image, line MN is parallel to line PQ . In the image of shape $M'N'Q'P'$, is the line $M'N'$ parallel to $P'Q'$?

Name another set of parallel lines in the pre-image. Did this set of lines remain parallel in the image after the translation?

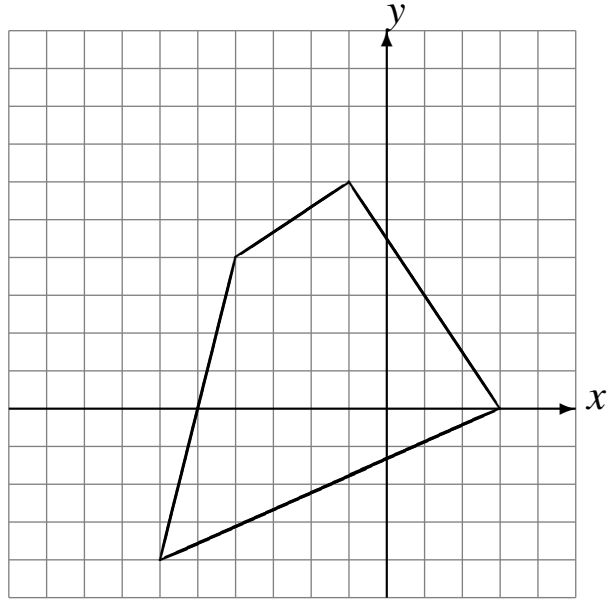
Translations (A)

Draw each translated image.

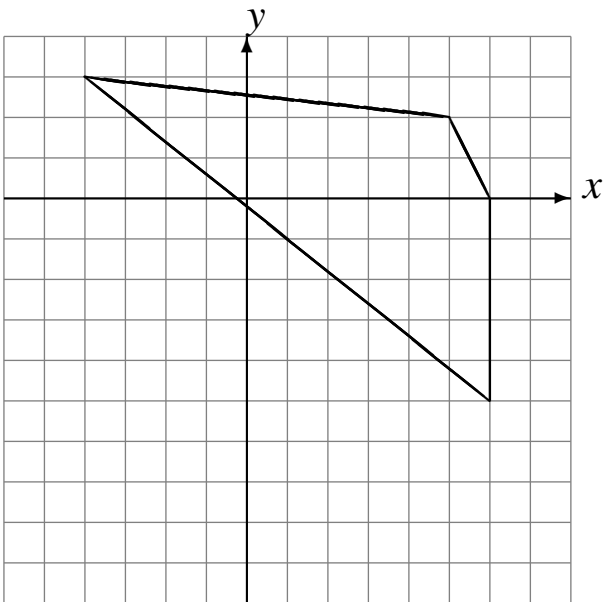
Translate by $(-4, 5)$.



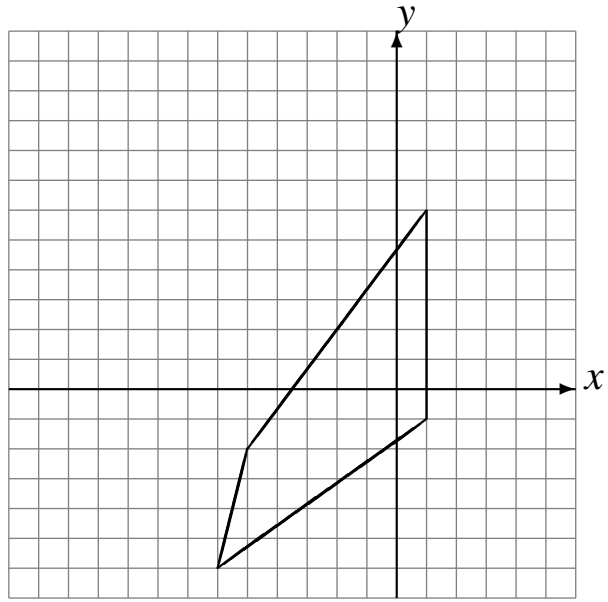
Translate by $(-2, 3)$.



Translate by $(-1, -4)$.



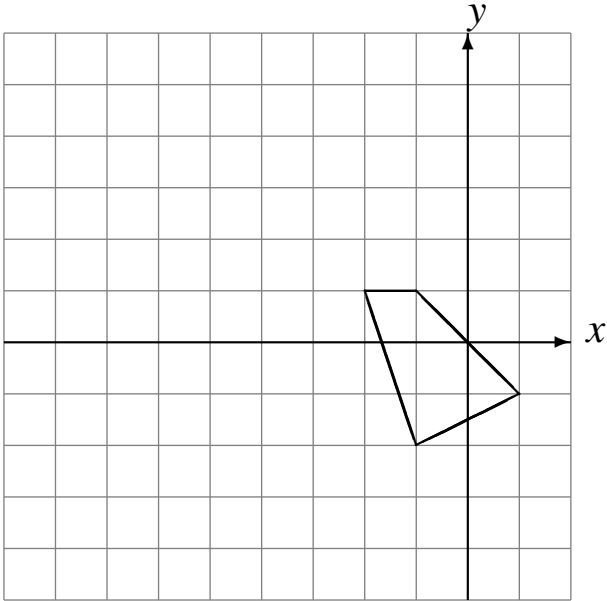
Translate by $(-2, 5)$.



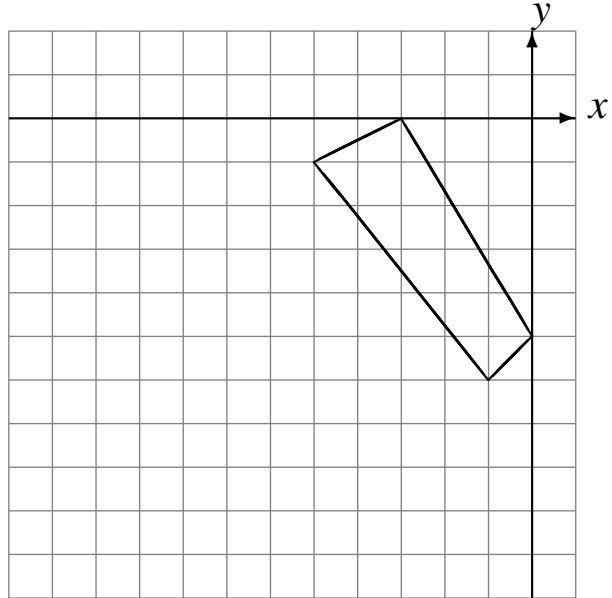
Translations (B)

Draw each translated image.

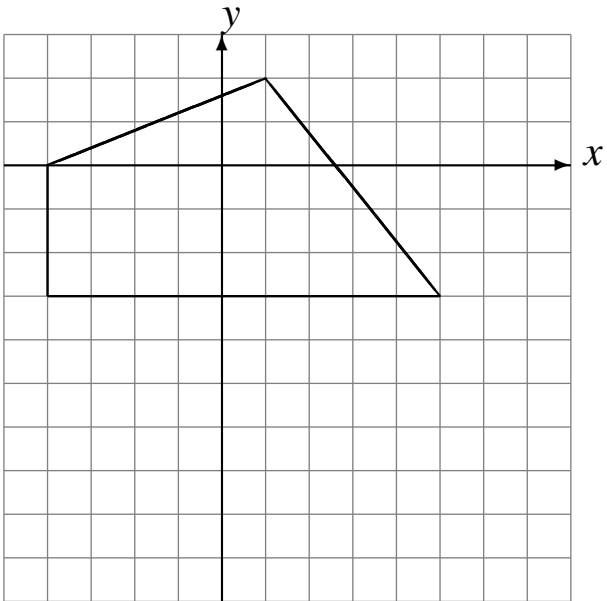
Translate by $(-6, 2)$.



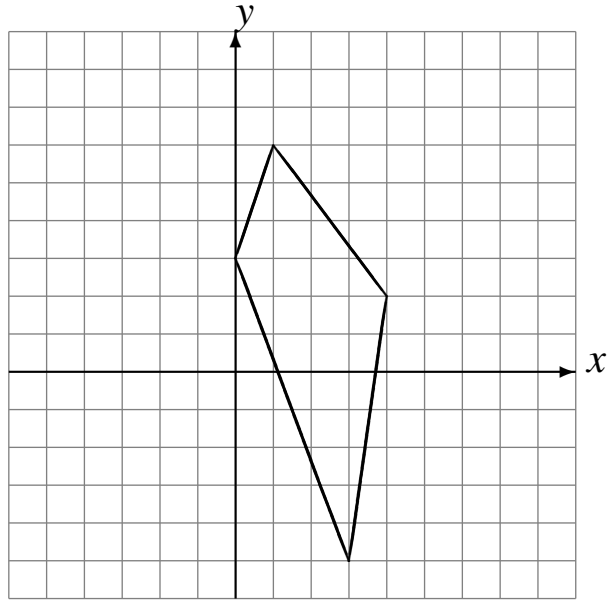
Translate by $(-6, -4)$.



Translate by $(2, -6)$.



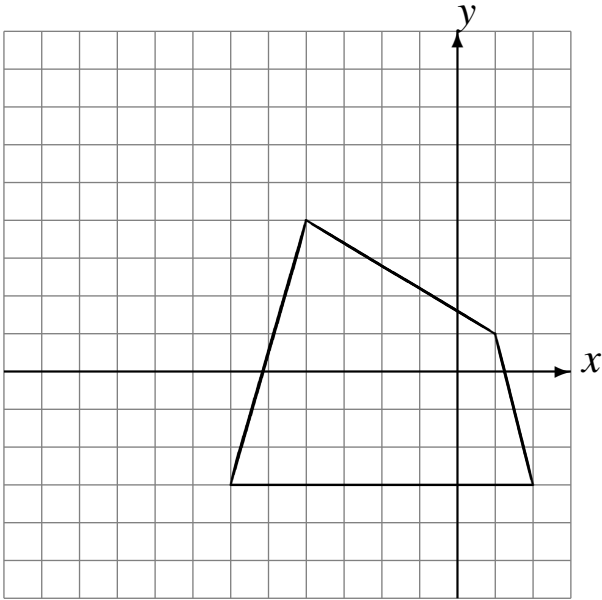
Translate by $(-2, 2)$.



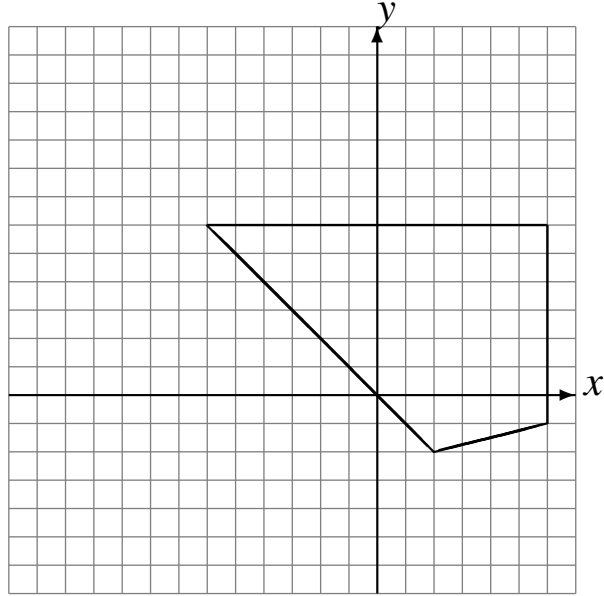
Translations (C)

Draw each translated image.

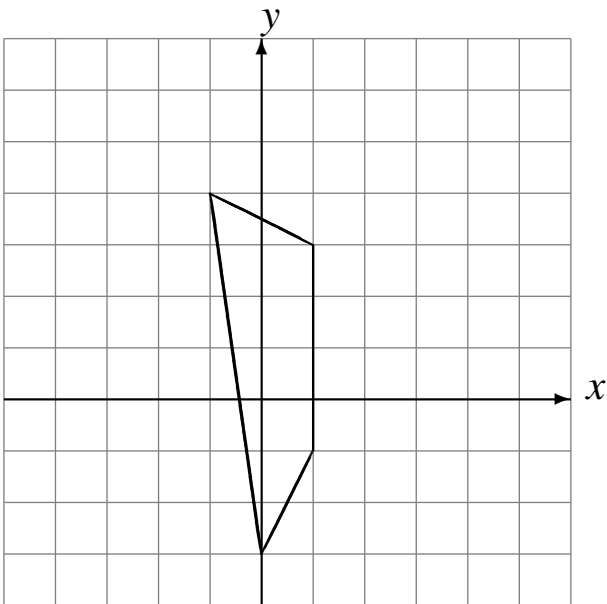
Translate by $(-5, 2)$.



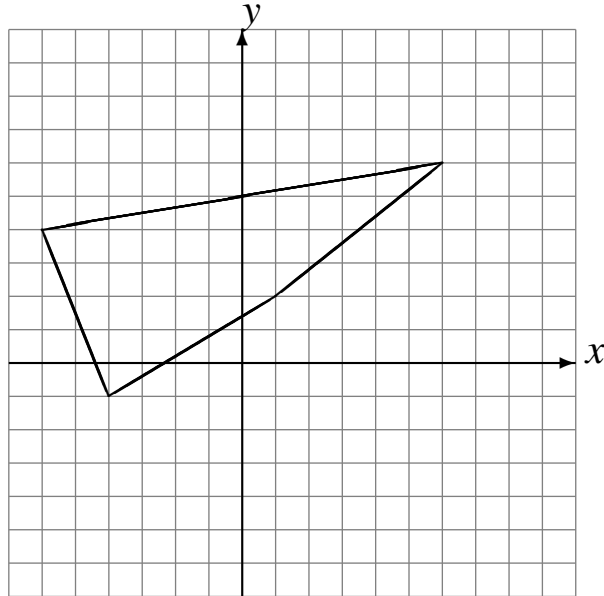
Translate by $(-6, 2)$.



Translate by $(0, 2)$.



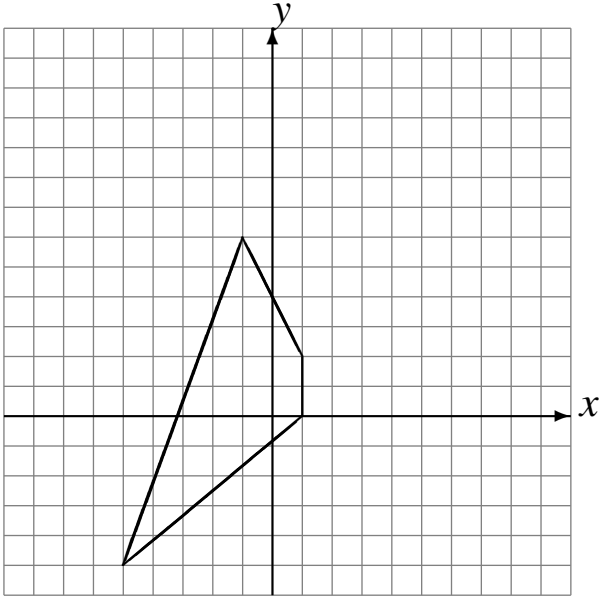
Translate by $(3, -3)$.



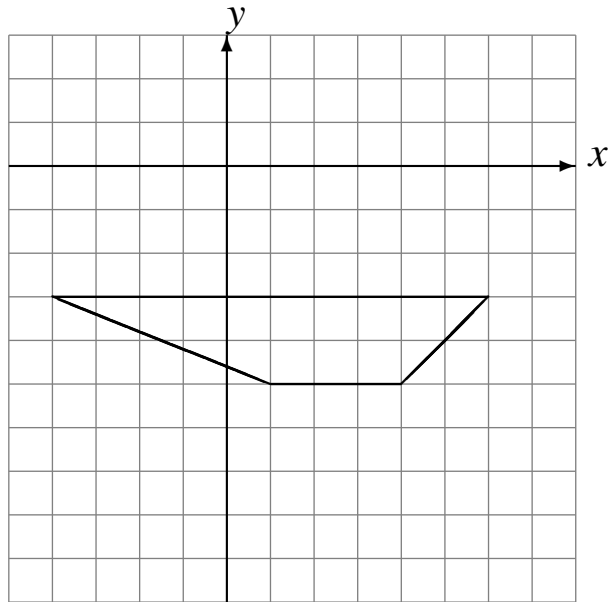
Translations (D)

Draw each translated image.

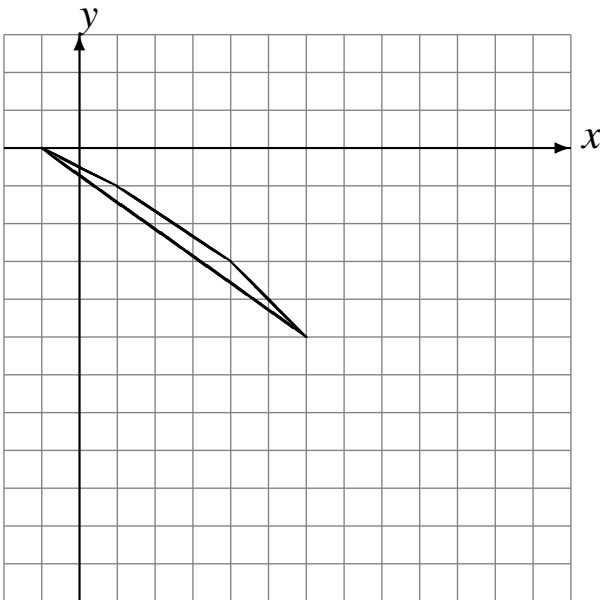
Translate by $(4, 6)$.



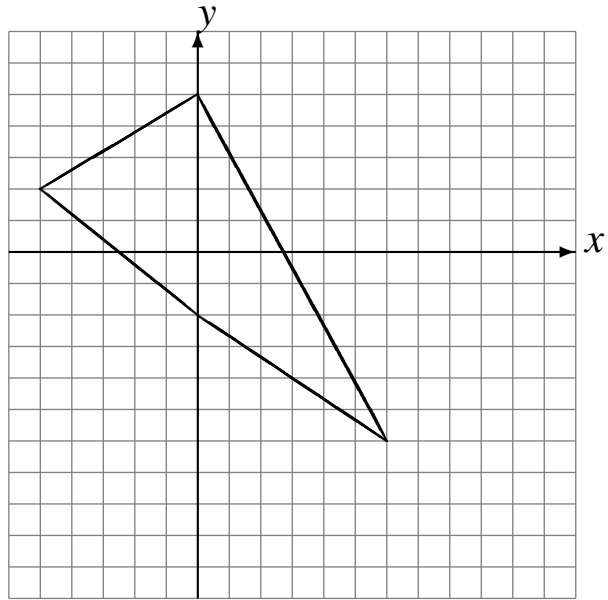
Translate by $(1, -2)$.



Translate by $(6, -4)$.



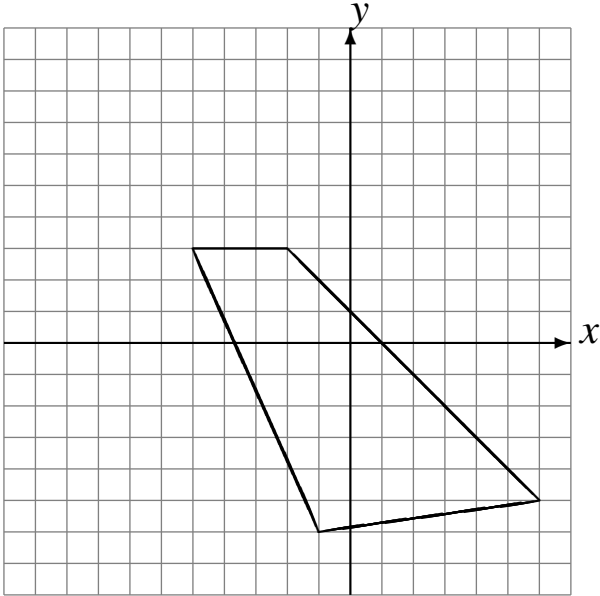
Translate by $(5, -4)$.



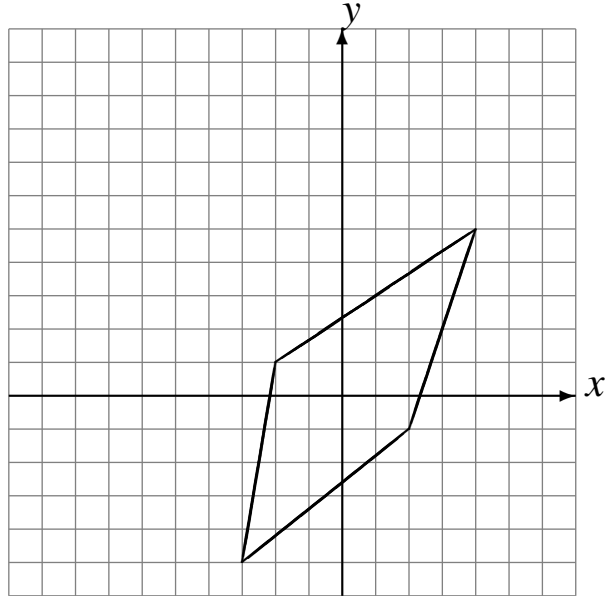
Translations (E)

Draw each translated image.

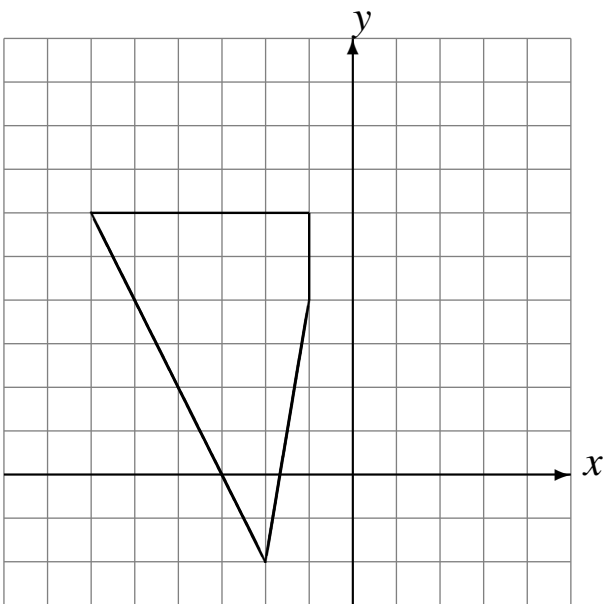
Translate by $(-5, 5)$.



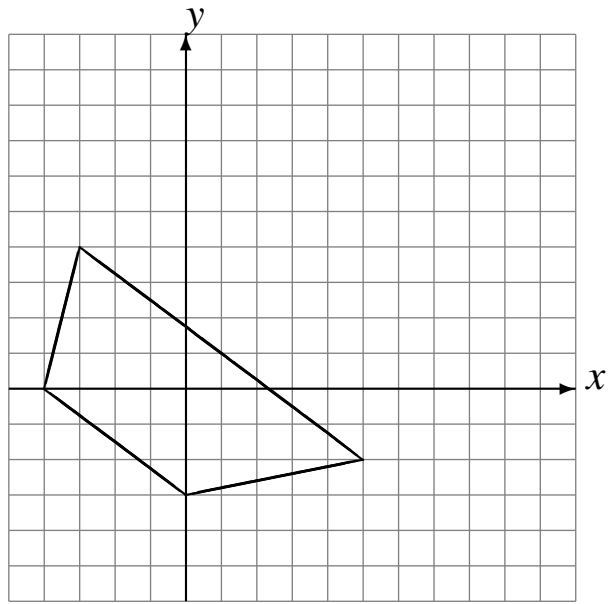
Translate by $(-5, 5)$.



Translate by $(4, 3)$.



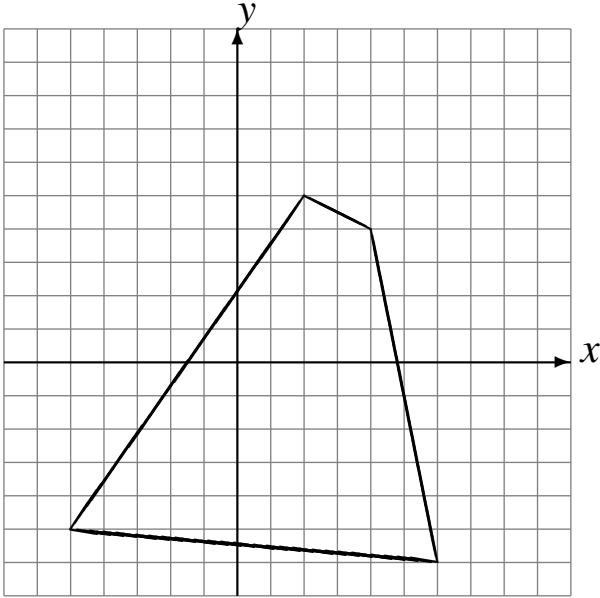
Translate by $(5, 2)$.



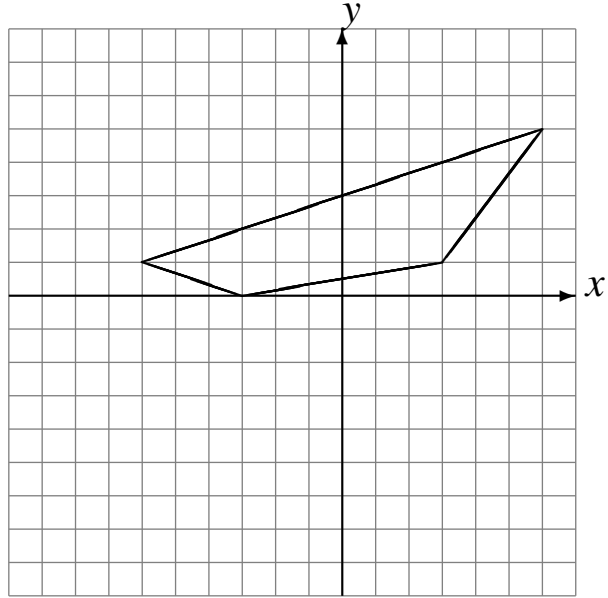
Translations (F)

Draw each translated image.

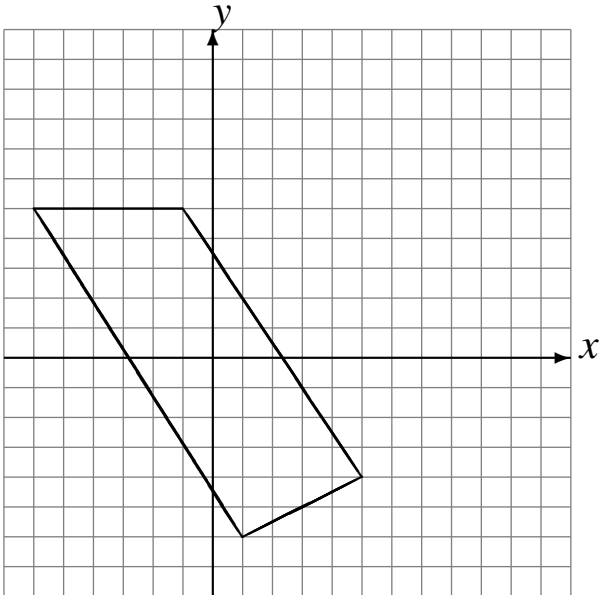
Translate by $(1, 4)$.



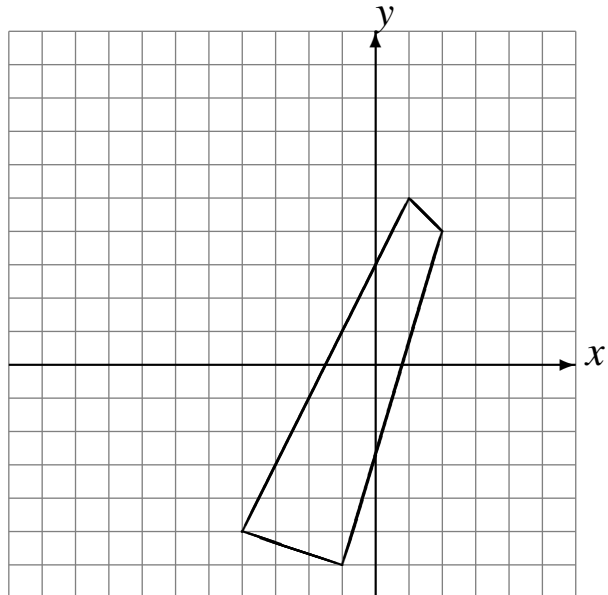
Translate by $(-3, -6)$.



Translate by $(6, 4)$.



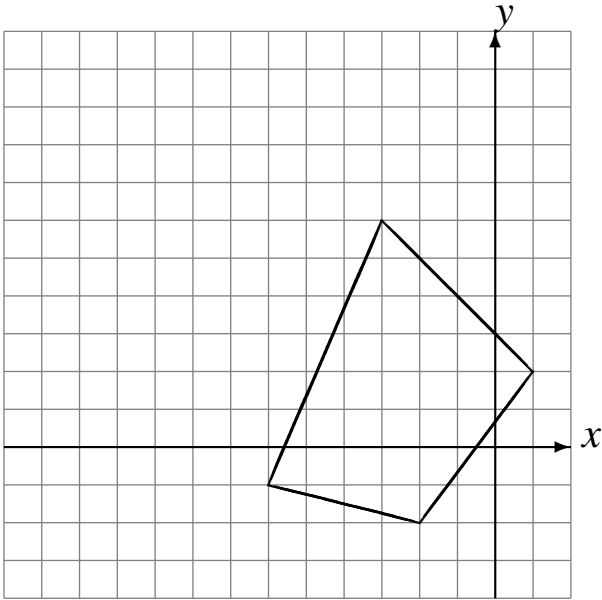
Translate by $(-3, 4)$.



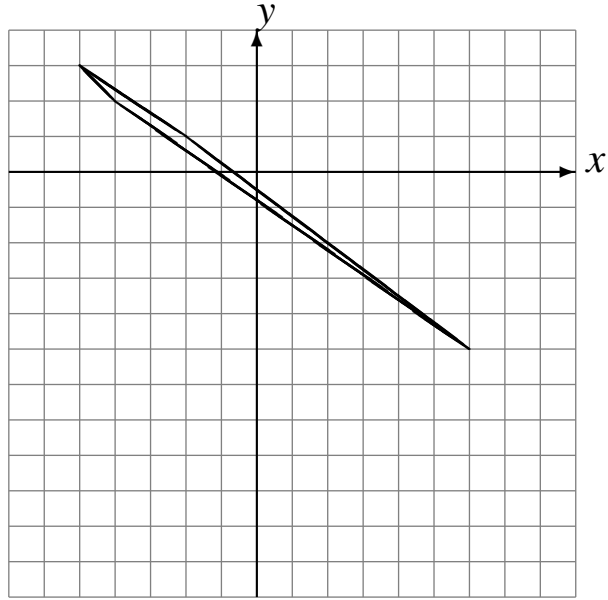
Translations (G)

Draw each translated image.

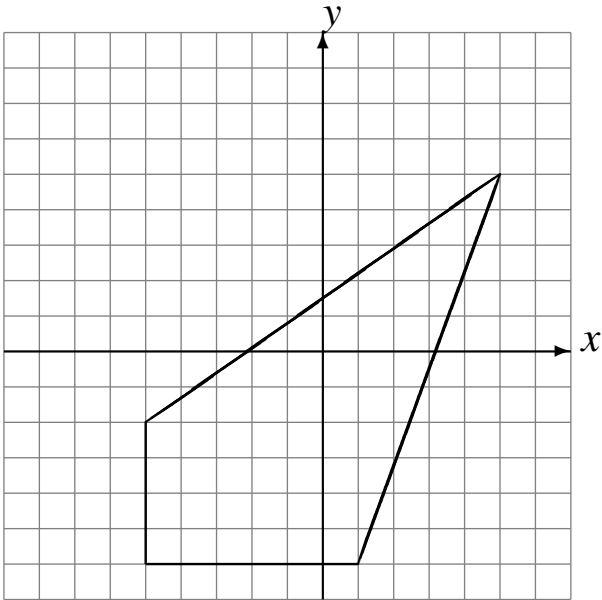
Translate by $(-6, 2)$.



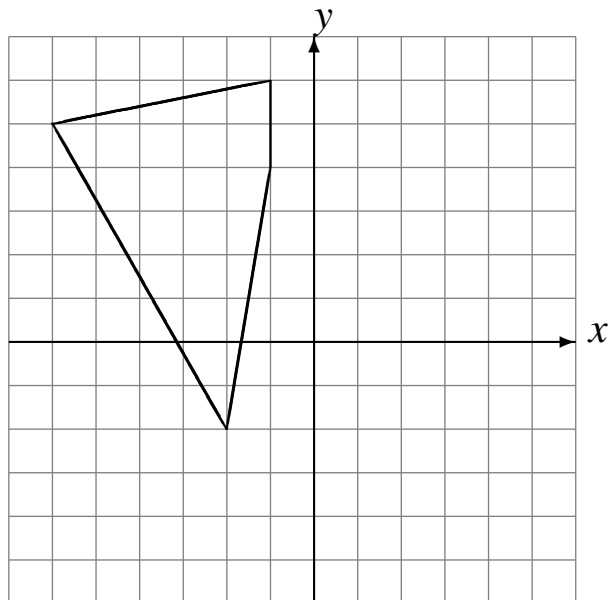
Translate by $(0, -6)$.



Translate by $(-3, 3)$.



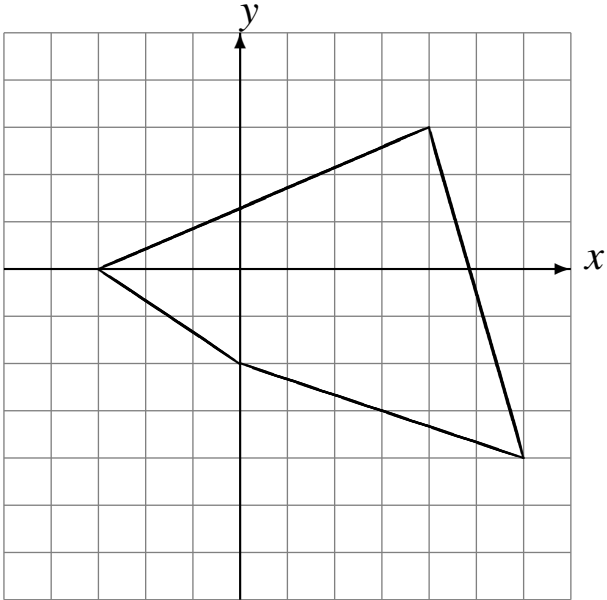
Translate by $(6, -3)$.



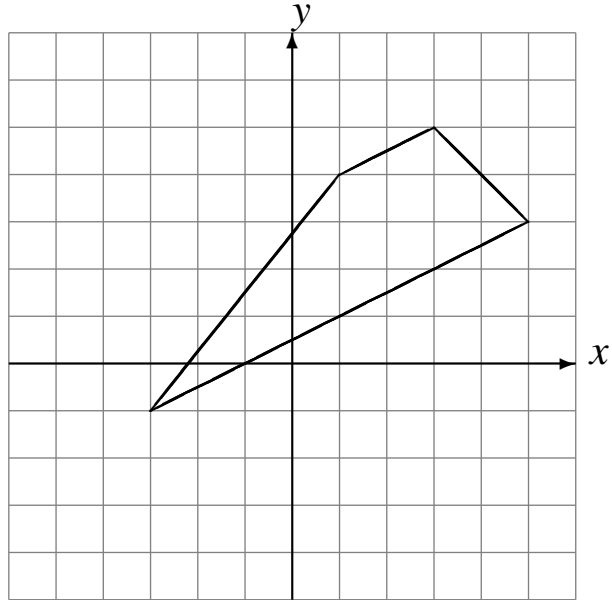
Translations (H)

Draw each translated image.

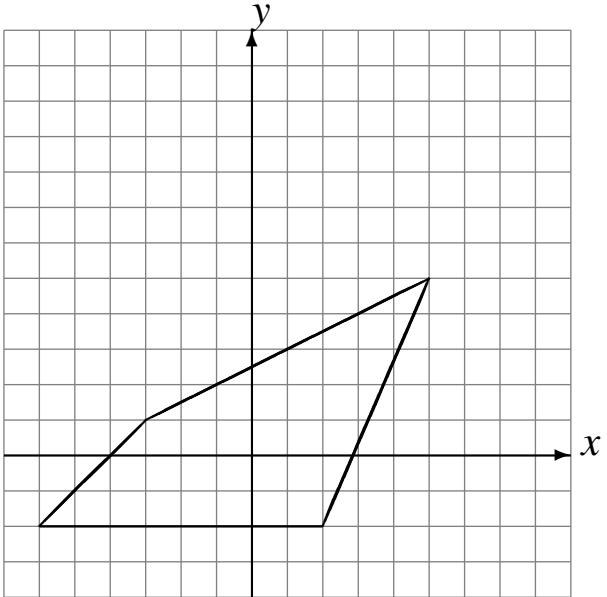
Translate by $(-1, -2)$.



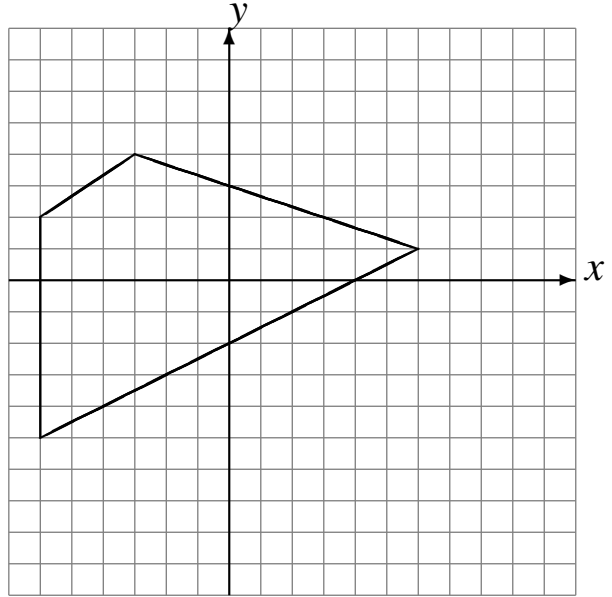
Translate by $(-2, -3)$.



Translate by $(3, 4)$.



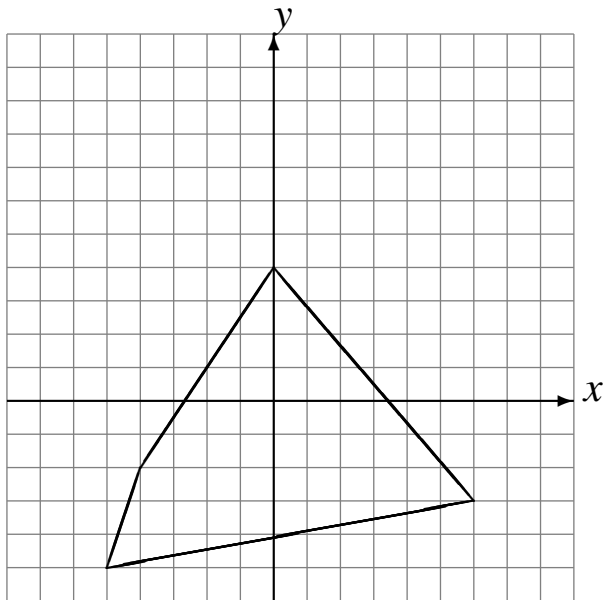
Translate by $(4, -2)$.



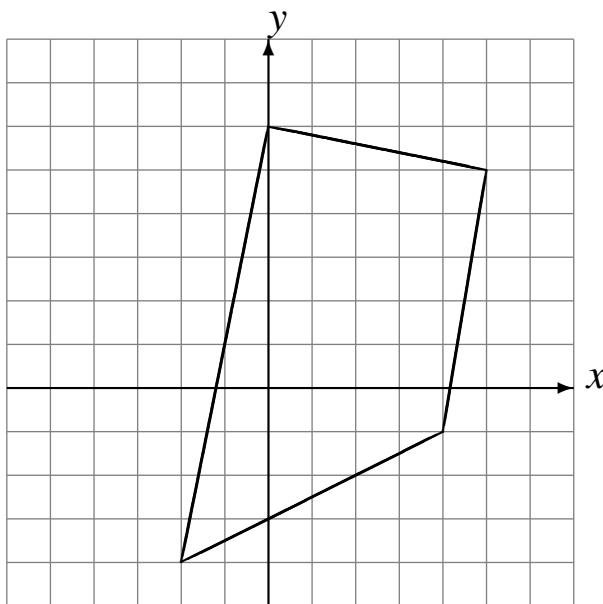
Translations (I)

Draw each translated image.

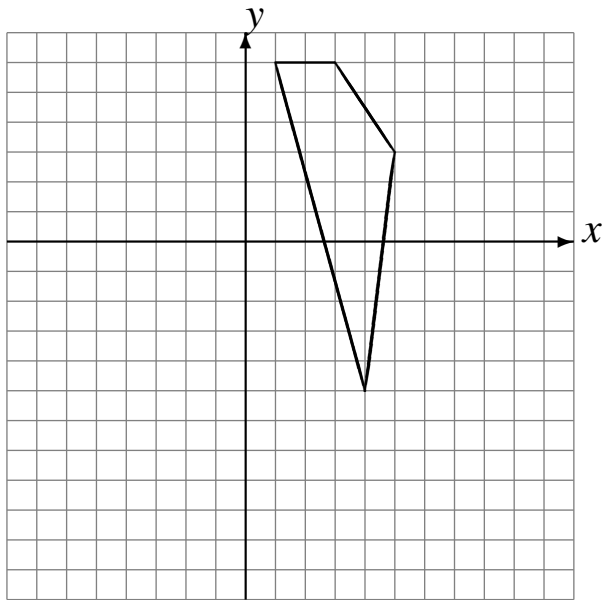
Translate by $(-1, 6)$.



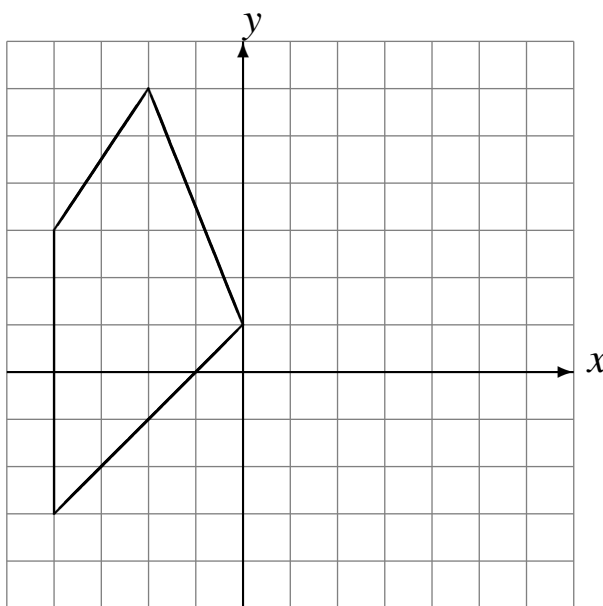
Translate by $(-3, 1)$.



Translate by $(-3, -6)$.



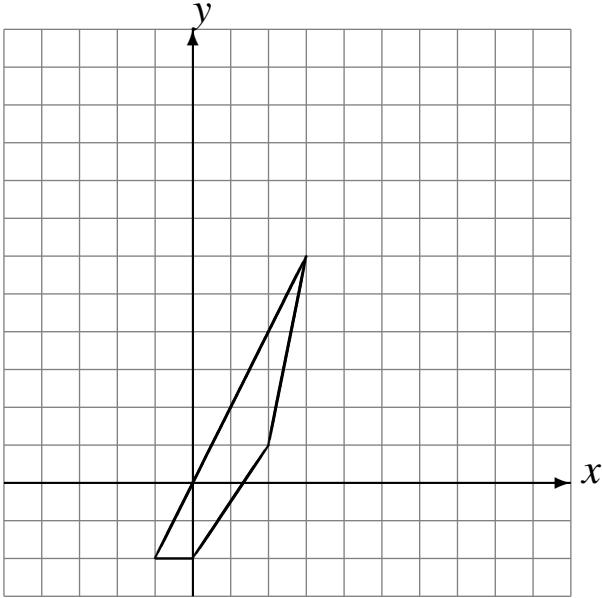
Translate by $(5, -1)$.



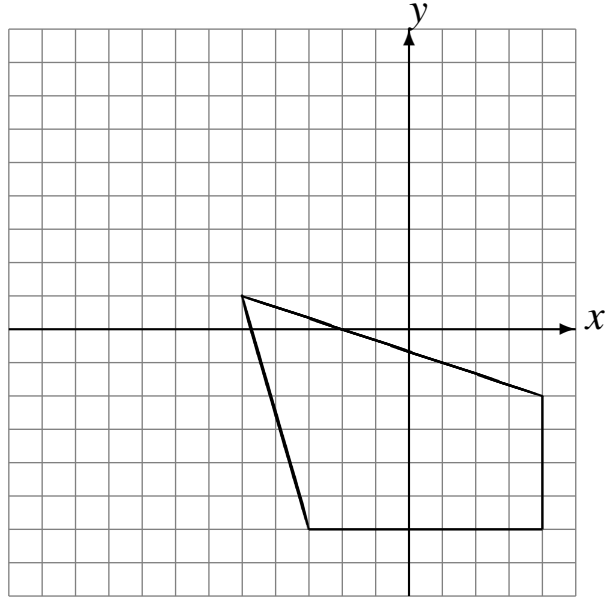
Translations (J)

Draw each translated image.

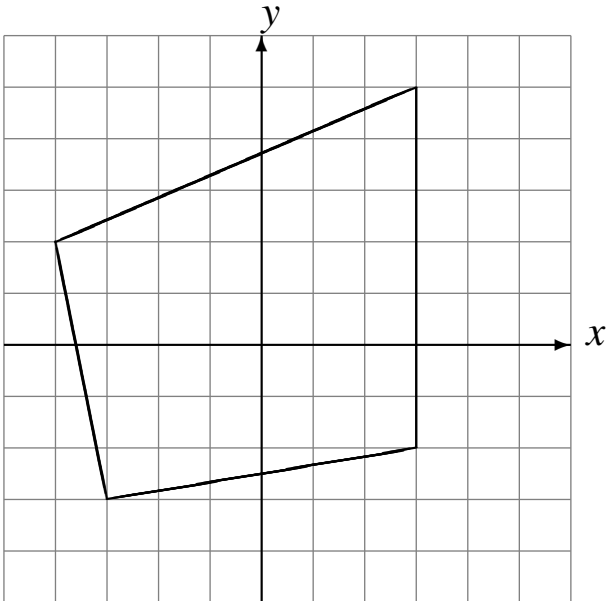
Translate by $(3, 5)$.



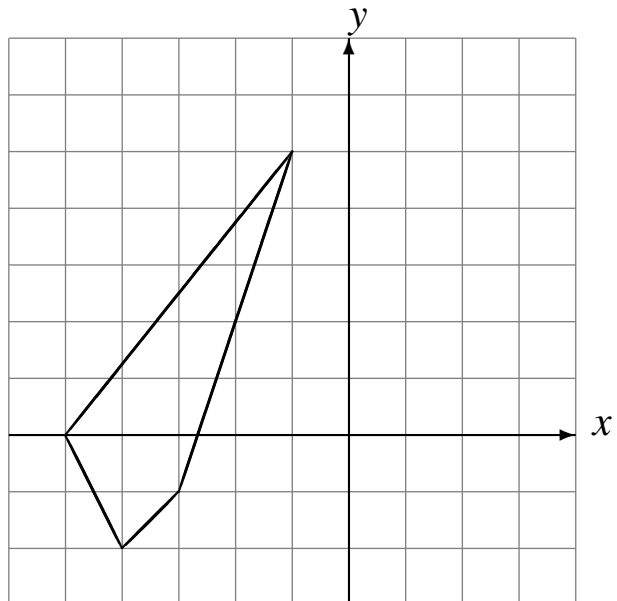
Translate by $(-6, 6)$.



Translate by $(2, -1)$.



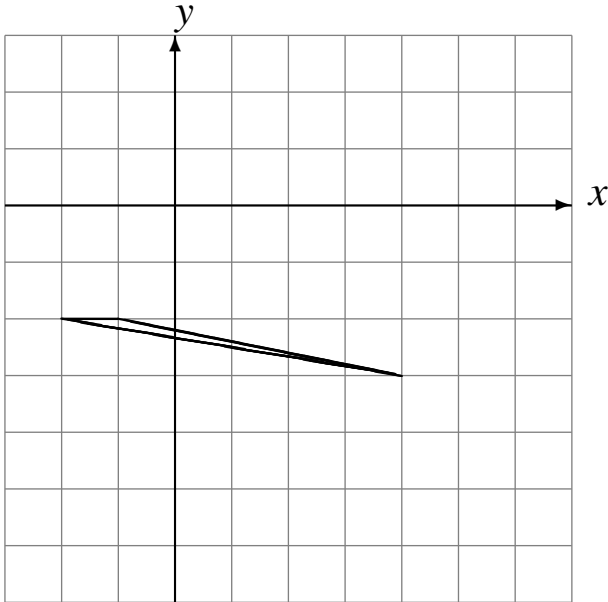
Translate by $(3, 1)$.



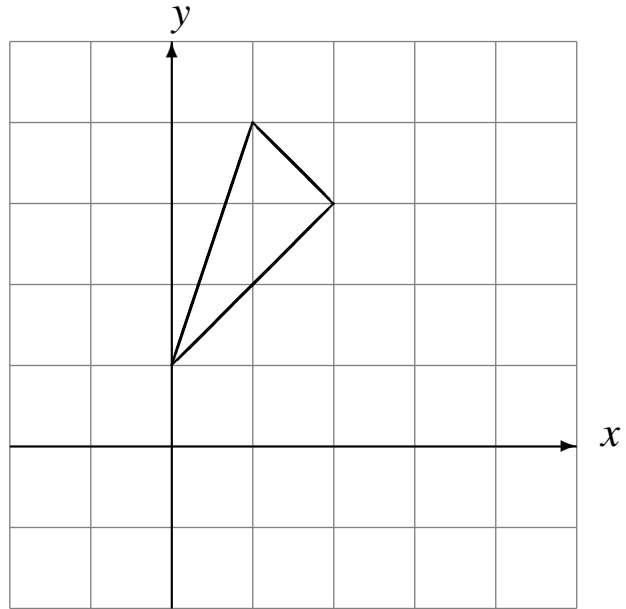
Translations (J)

Draw each translated image.

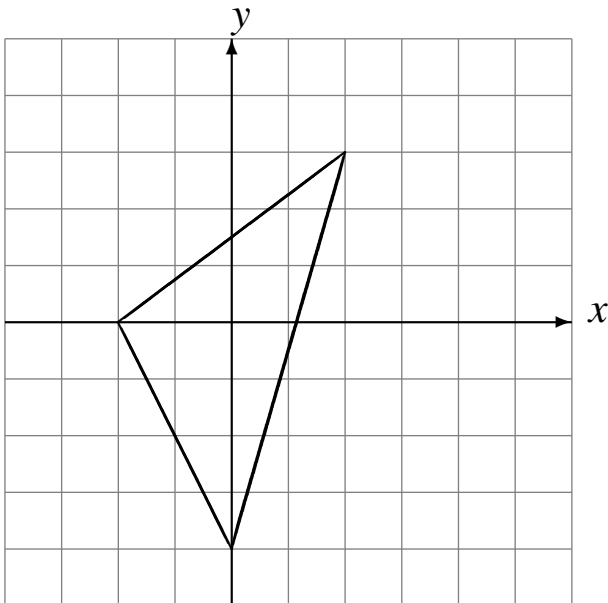
Translate by $(2, -2)$.



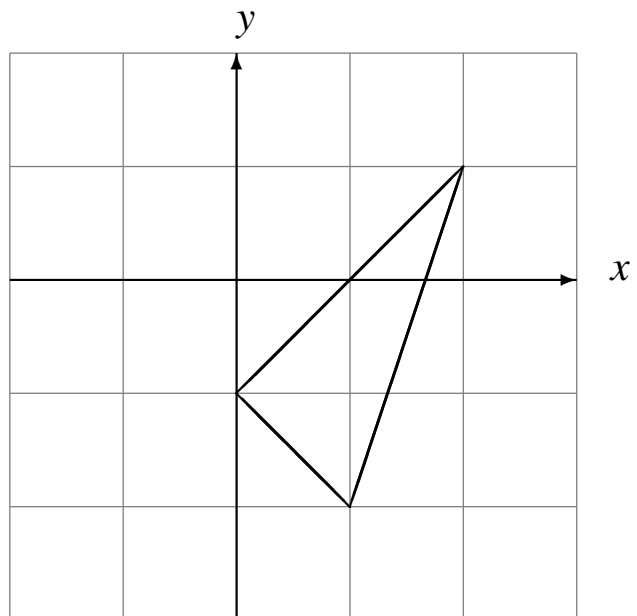
Translate by $(1, -2)$.



Translate by $(2, 1)$.



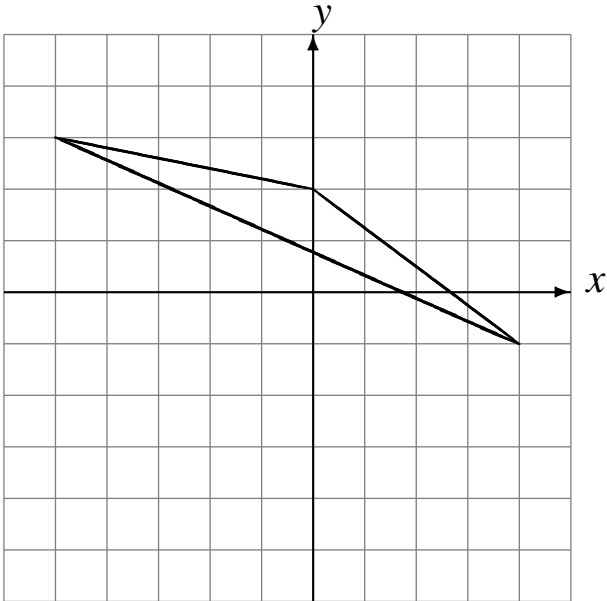
Translate by $(-1, 0)$.



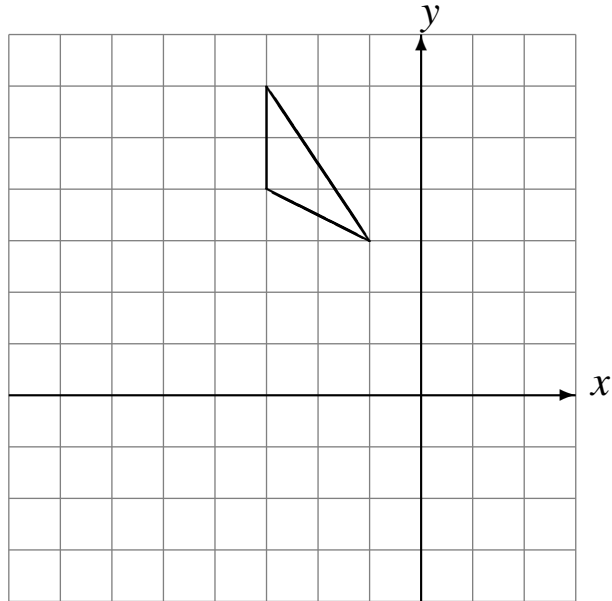
Rotations (J)

Draw the rotated image.

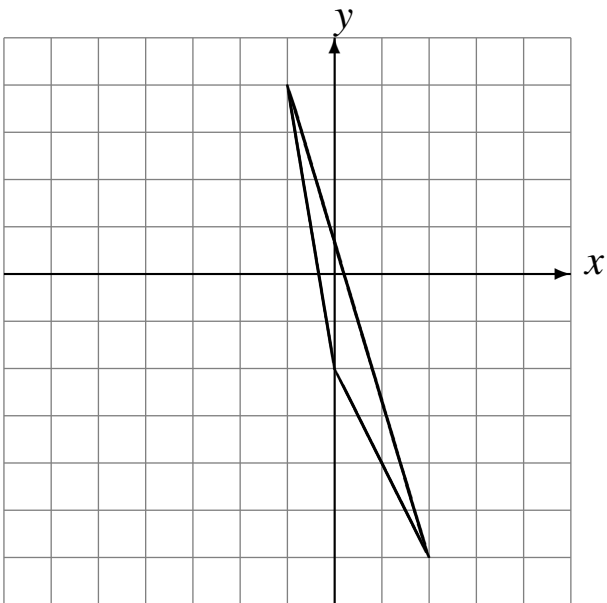
Rotate 90° counterclockwise about $(0, 0)$.



Rotate 90° counterclockwise about $(0, 0)$.



Rotate 90° clockwise about $(0, 0)$.



Rotate 180° about $(0, 0)$.

