

8. Assessment Focus

- a) Plot these points on a coordinate grid:

$A(2, 4)$, $B(4, 4)$, $C(4, 2)$, $D(6, 2)$, $E(6, 6)$

Join the points to draw polygon $ABCDE$.

- b) Translate the polygon 4 units right and 6 units up.

Write the coordinates of each vertex of the image polygon $A'B'C'D'E'$.

- c) Reflect the image polygon $A'B'C'D'E'$ in the y -axis.

Write the coordinates of each vertex of the image polygon $A''B''C''D''E''$.

- d) How does polygon $A''B''C''D''E''$ compare with polygon $ABCDE$?

When there are 2 transformations, we use a "double" prime notation for the vertices of the second image.

9. a) Plot these points on a coordinate grid: $F(-5, 8)$, $G(0, 8)$, $H(-1, 5)$, $J(-5, 5)$

Join the points to draw trapezoid $FGHJ$.

- b) Translate the trapezoid 2 units right and 1 unit down.

- c) Translate the image trapezoid $F'G'H'J'$ 2 units right and 1 unit down.

- d) Repeat part c four more times for each resulting image trapezoid.

- e) Describe the translation that moves trapezoid $FGHJ$ to the final image.