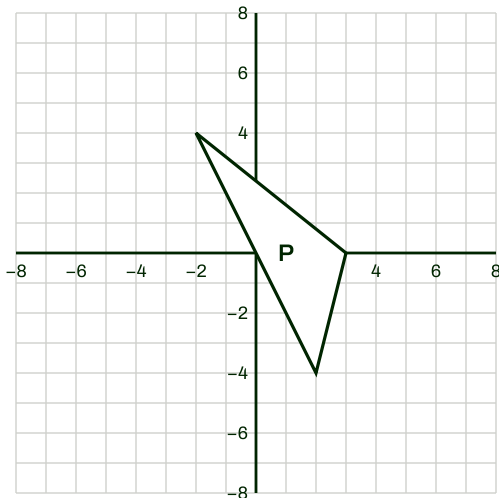


Translate a figure on the coordinate plane

NAME	DATE	SCORE
		/ 10

- 1** Triangle P, with vertices $(2, -4)$, $(-2, 4)$ and $(3, 0)$, is drawn on the coordinate plane below. Triangle P is translated 4 right and 2 up. What are the vertices of the image?

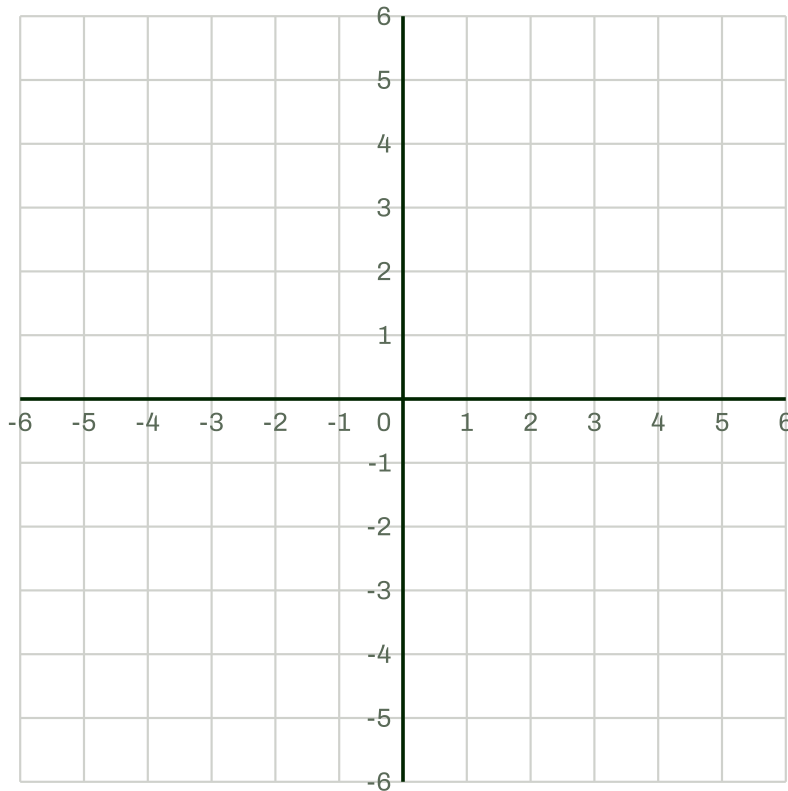


- ☐ $(6, -6), (2, 2), (7, -2)$
☐ $(6, -2), (2, 6), (7, 2)$
☐ $(-2, -2), (-6, 6), (-1, 2)$

☐ $(4, 0), (0, 8), (5, 4)$

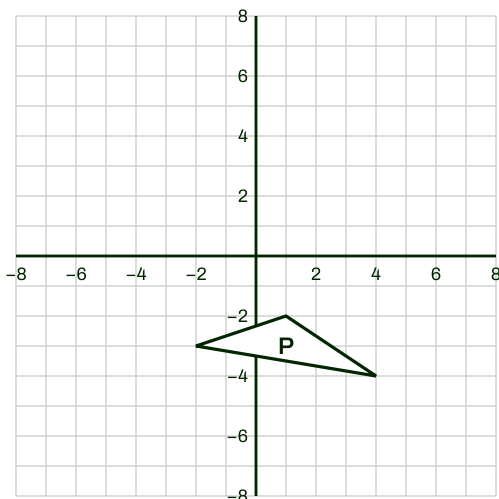
2

A triangle has vertices $(3, 1)$, $(3, -2)$ and $(0, -1)$. The triangle is translated 1 right and 2 up. Plot the image of the vertex $(3, 1)$.



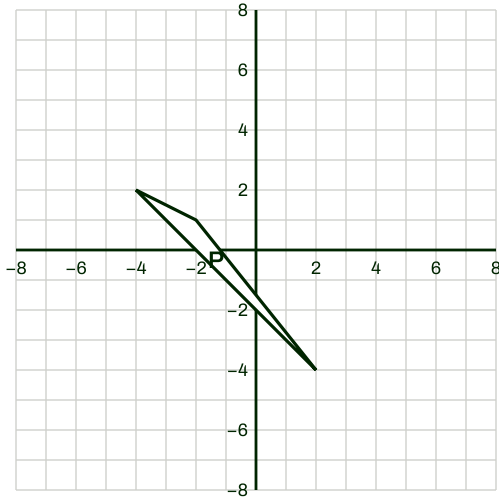
3

Triangle P, with vertices $(4, -4)$, $(-2, -3)$ and $(1, -2)$, is drawn on the coordinate plane below. Draw the image of triangle P after it is translated 3 left and 4 down.



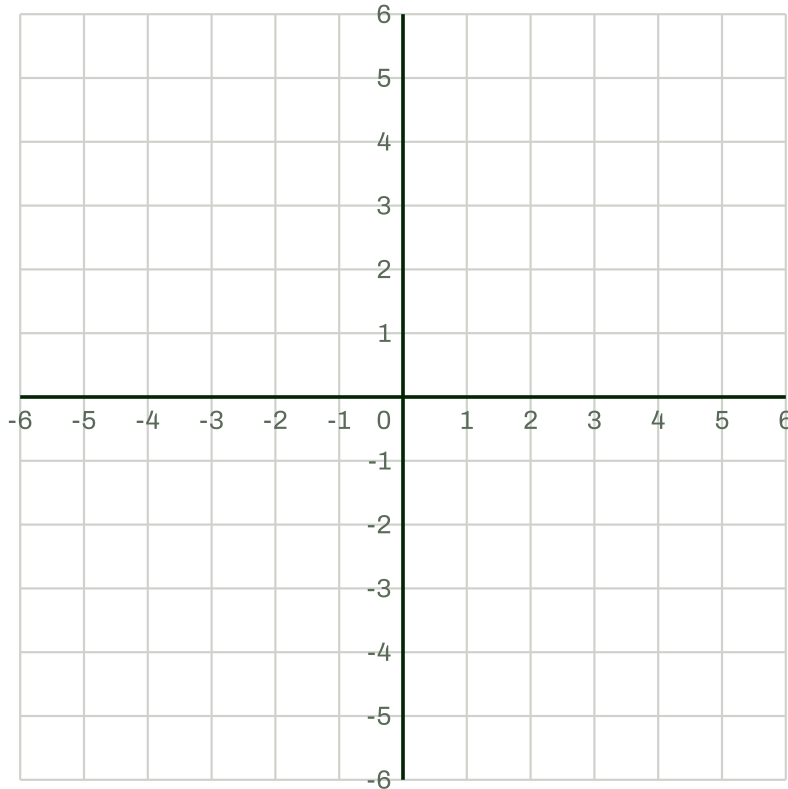
4

Triangle P, with vertices $(-4, 2)$, $(-2, 1)$ and $(2, -4)$, is drawn on the coordinate plane below. Triangle P is translated by the rule $(x, y) \rightarrow (x + 1, y + 3)$. What are the vertices of the image?

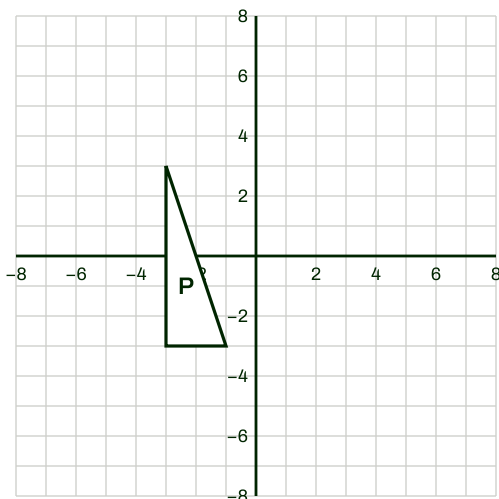


- ☐ $(-5, 5), (-3, 4), (1, -1)$
☐ $(-1, 3), (1, 2), (5, -3)$
☐ $(-3, -1), (-1, -2), (3, -7)$
☐ $(-3, 5), (-1, 4), (3, -1)$

- 5** A triangle has vertices $(-2, -2)$, $(0, 0)$ and $(1, -2)$. The triangle is translated 3 right and 1 up. Plot the image of the vertex $(1, -2)$.

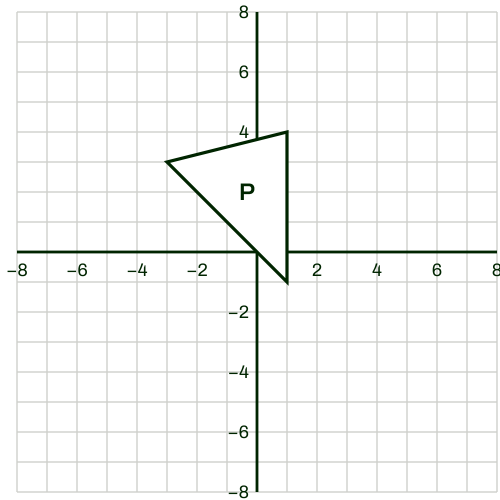


- 6** Triangle P, with vertices $(-3, 3)$, $(-1, -3)$ and $(-3, -3)$, is drawn on the coordinate plane below. Draw the image of triangle P after it is translated 4 right and 1 up.



7

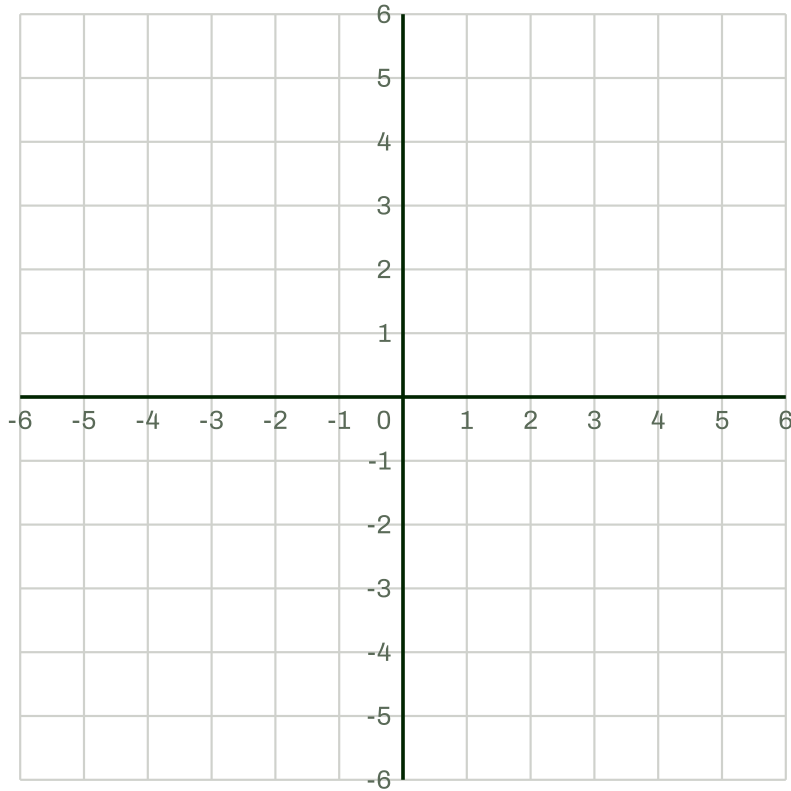
Triangle P, with vertices $(-3, 3)$, $(1, -1)$ and $(1, 4)$, is drawn on the coordinate plane below. Triangle P is translated by the rule $(x, y) \rightarrow (x + 1, y + 2)$. What are the vertices of the image?



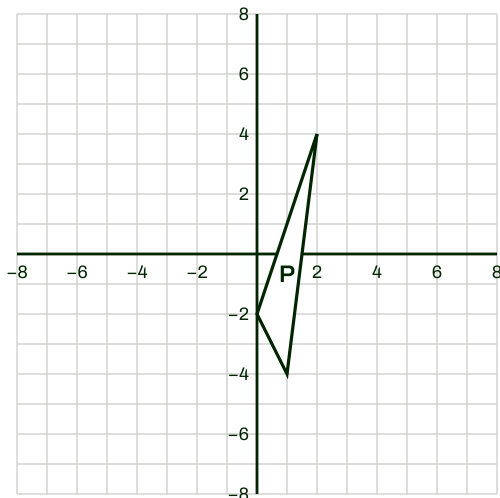
- ☐ $(-2, 5), (2, 1), (2, 6)$
 ☐ $(-2, 1), (2, -3), (2, 2)$
 ☐ $(-1, 4), (3, 0), (3, 5)$
☐ $(-4, 5), (0, 1), (0, 6)$

8

A triangle has vertices $(0, -3)$, $(-1, -1)$ and $(1, 1)$. The triangle is translated 2 left and 3 down. Plot the image of the vertex $(-1, -1)$.

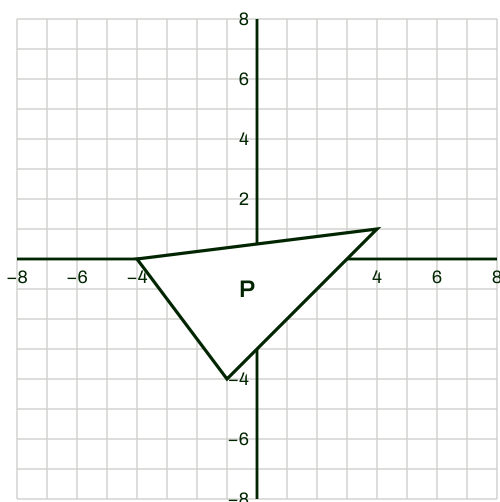


- 9** Triangle P, with vertices $(1, -4)$, $(2, 4)$ and $(0, -2)$, is drawn on the coordinate plane below. Triangle P is translated by the rule $(x, y) \rightarrow (x - 3, y - 1)$. What are the vertices of the image?



- ☐ $(-2, -3), (-1, 5), (-3, -1)$
☐ $(4, -5), (5, 3), (3, -3)$
☐ $(0, -7), (1, 1), (-1, -5)$
☐ $(-2, -5), (-1, 3), (-3, -3)$

- 10** Triangle P, with vertices $(-4, 0)$, $(4, 1)$ and $(-1, -4)$, is drawn on the coordinate plane below. Triangle P is translated by the rule $(x, y) \rightarrow (x - 3, y - 2)$. What are the vertices of the image?



- ☐ $(-7, -2), (1, -1), (-4, -6)$
☐ $(-1, -2), (7, -1), (2, -6)$
☐ $(-6, -3), (2, -2), (-3, -7)$
☐ $(-7, 2), (1, 3), (-4, -2)$

Translate a figure on the coordinate plane

1 $(6, -2), (2, 6), (7, 2)$

2 $4, 3$

4 $(-3, 5), (-1, 4), (3, -1)$

5 $4, -1$

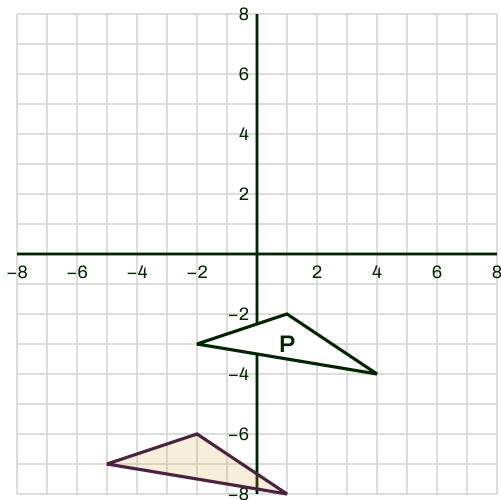
7 $(-2, 5), (2, 1), (2, 6)$

8 $-3, -4$

9 $(-2, -5), (-1, 3), (-3, -3)$

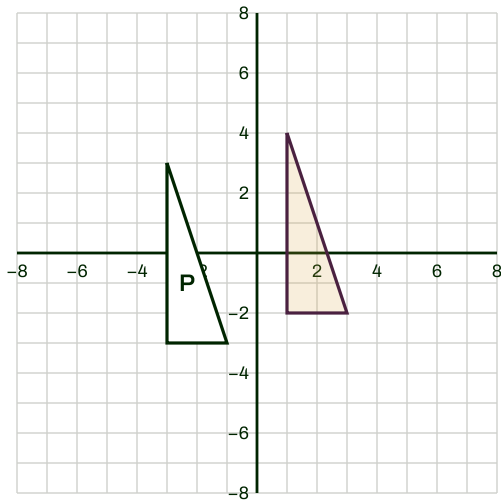
10 $(-7, -2), (1, -1), (-4, -6)$

3 A drawing



What counts as right: A triangle with vertices at $(1, -8)$, $(-5, -7)$ and $(-2, -6)$: every vertex of P moved 3 left and 4 down, joined by straight lines. It is the same size and shape as P and faces the same way. Moving 3 right and 4 down instead, or moving only some of the vertices, does not count.

6 A drawing



What counts as right: A triangle with vertices at $(1, 4)$, $(3, -2)$ and $(1, -2)$: every vertex of P moved 4 right and 1 up, joined by straight lines. It is the same size and shape as P and faces the same way. Moving 4 left and 1 up instead, or moving only some of the vertices, does not count.