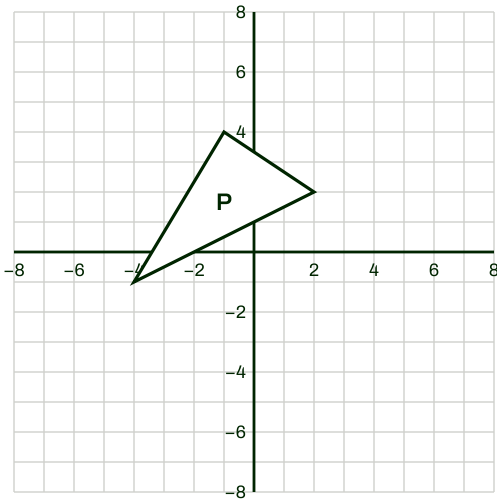


Translate a figure on the coordinate plane

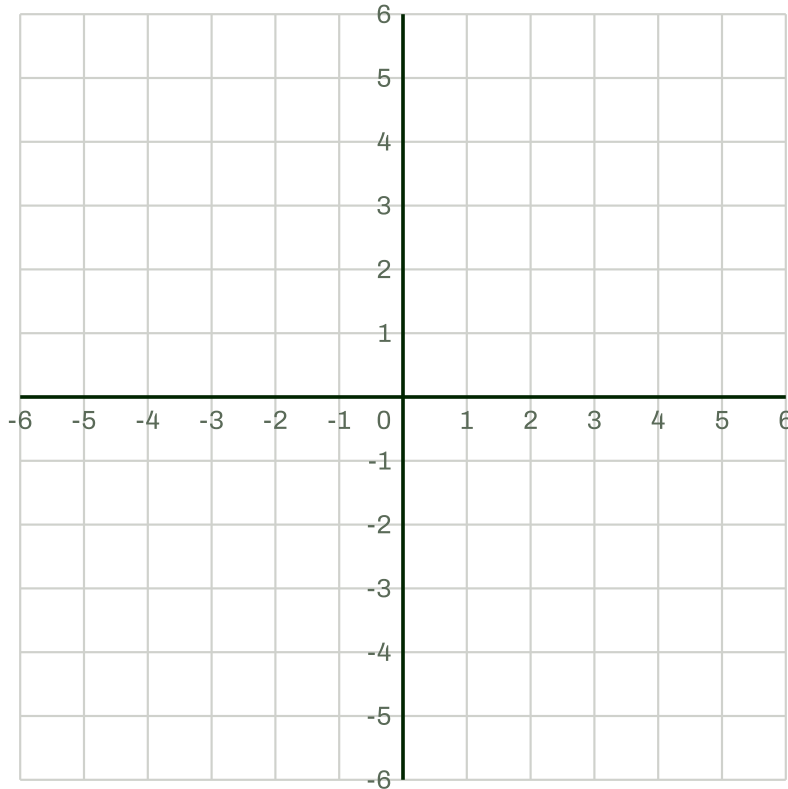
NAME	DATE	SCORE
		/ 10

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

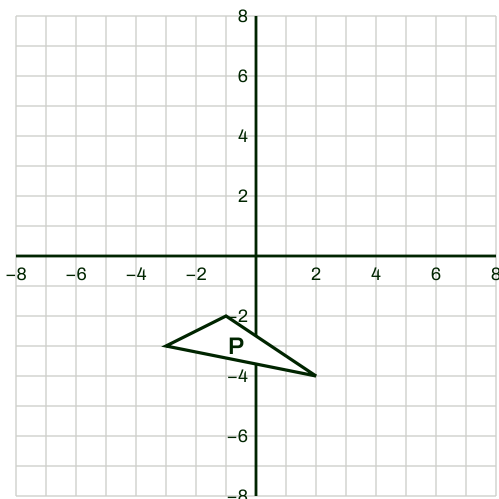


- ☐ $(-8, -2)$, $(-2, 1)$, $(-5, 3)$
 ☐ $(0, 0)$, $(6, 3)$, $(3, 5)$
 ☐ $(-5, 3)$, $(1, 6)$, $(-2, 8)$
☐ $(0, -2)$, $(6, 1)$, $(3, 3)$

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

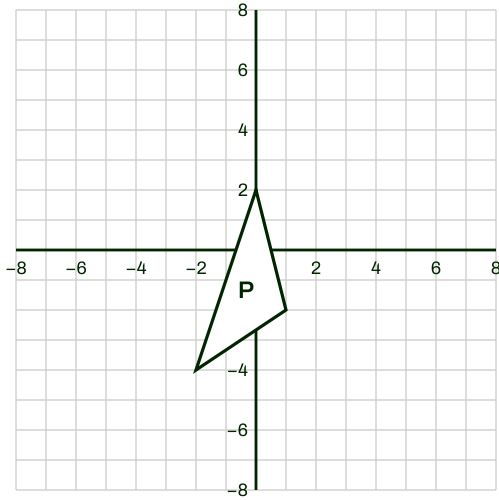


- 3** Triangle P, with vertices $(-3, -3)$, $(-1, -2)$ and $(2, -4)$, is drawn on the coordinate plane below. Draw the image of triangle P after it is translated 3 right and 4 up.



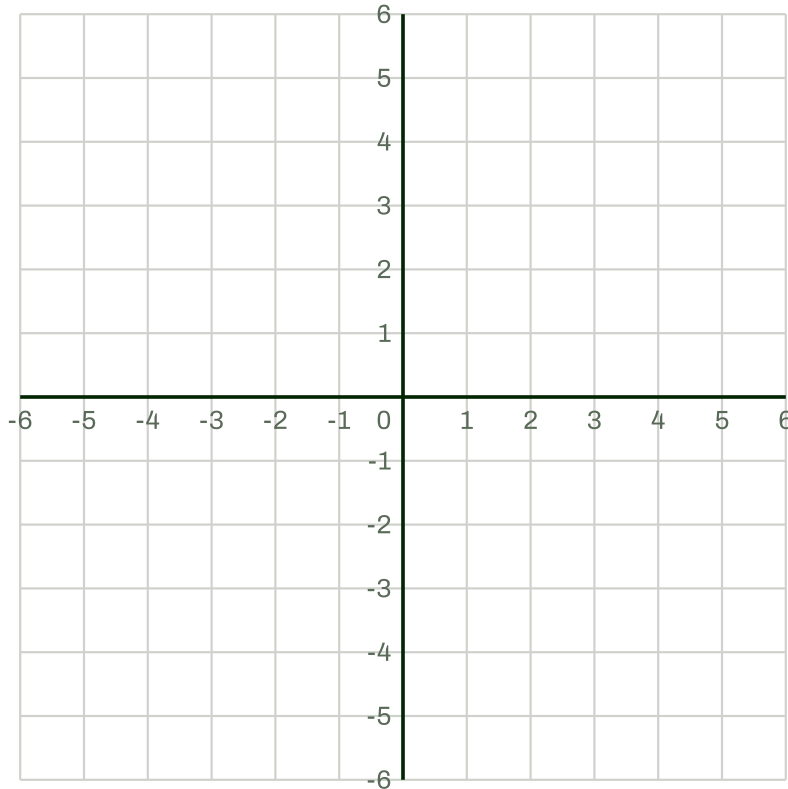
4

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

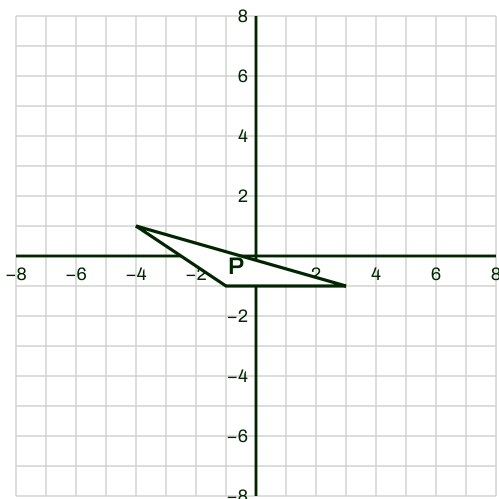


- ☐ $(-3, -2), (-5, -8), (-2, -6)$
 ☐ $(-3, 6), (-5, 0), (-2, 2)$
 ☐ $(3, 6), (1, 0), (4, 2)$
☐ $(4, -1), (2, -7), (5, -5)$

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

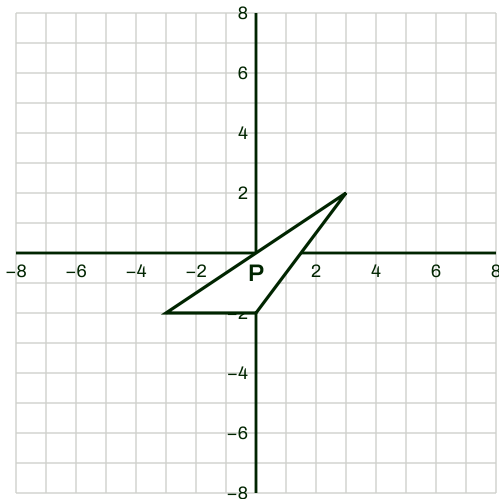


- 6** Triangle P, with vertices $(3, -1)$, $(-4, 1)$ and $(-1, -1)$, is drawn on the coordinate plane below. Draw the image of triangle P after it is translated 2 right and 4 down.



7

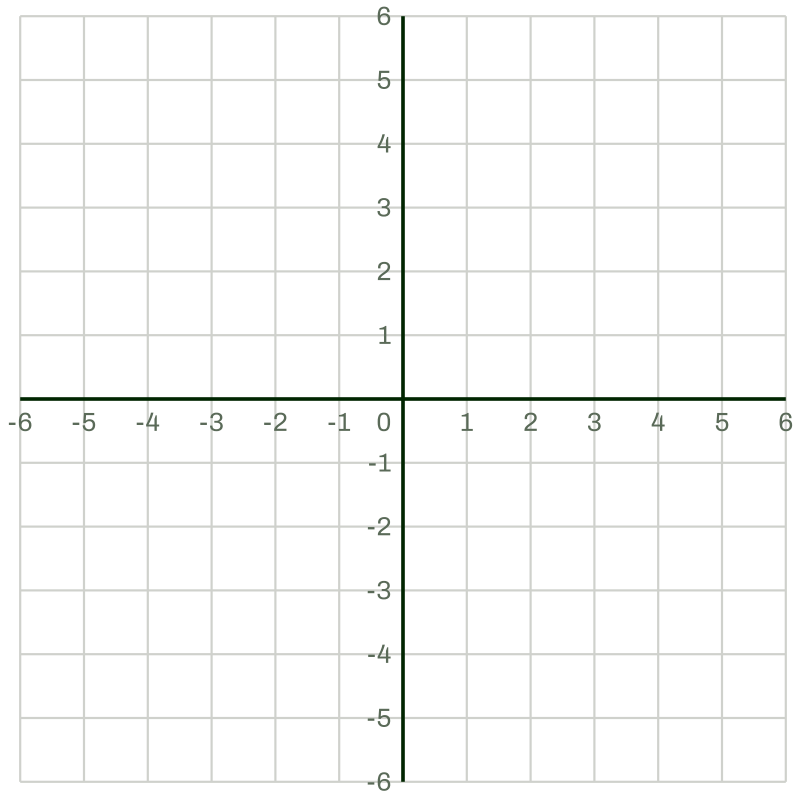
Triangle P, with vertices $(3, 2)$, $(-3, -2)$ and $(0, -2)$, is drawn on the coordinate plane below. Triangle P is translated 2 right and 3 down. What are the vertices of the image?



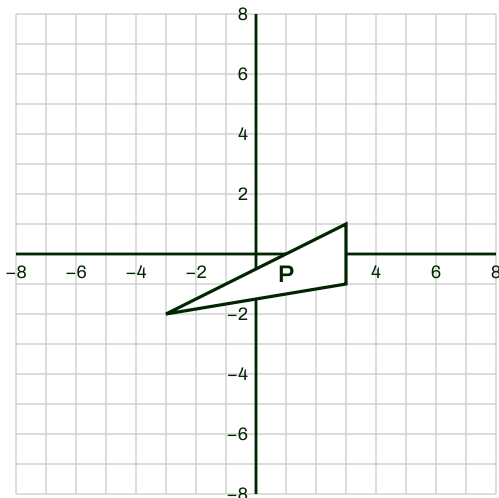
- ☐ $(5, 5), (-1, 1), (2, 1)$
 ☐ $(5, -1), (-1, -5), (2, -5)$
 ☐ $(0, 4), (-6, 0), (-3, 0)$
☐ $(1, -1), (-5, -5), (-2, -5)$

8

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

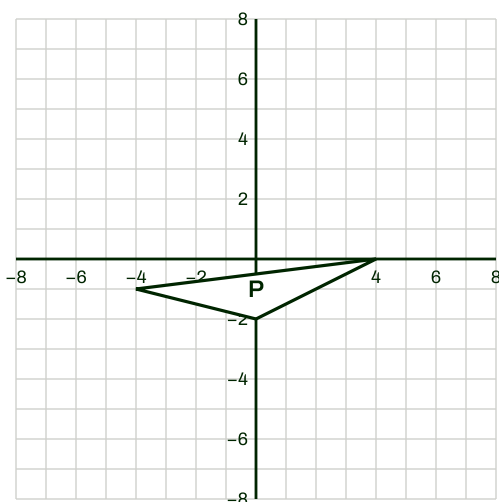


- 9** Triangle P, with vertices $(-3, -2)$, $(3, -1)$ and $(3, 1)$, is drawn on the coordinate plane below. Triangle P is translated by the rule $(x, y) \rightarrow (x + 4, y + 2)$. What are the vertices of the image?



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

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



- ☐ $(-1, -6), (-5, -5), (3, -4)$
 ☐ $(1, -6), (-3, -5), (5, -4)$
 ☐ $(-4, -3), (-8, -2), (0, -1)$
☐ $(-1, 2), (-5, 3), (3, 4)$

Translate a figure on the coordinate plane

1 $(0, -2), (6, 1), (3, 3)$

2 $1, -3$

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

5 $0, 1$

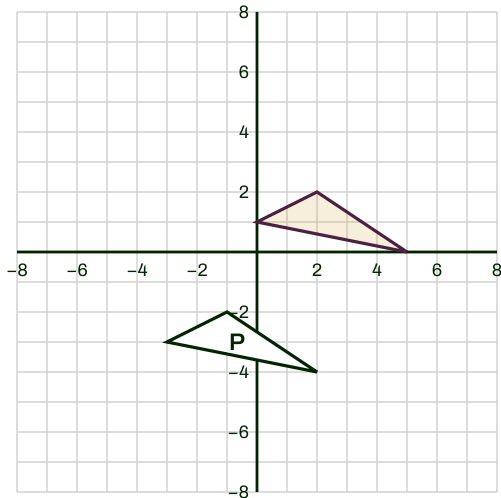
7 $(5, -1), (-1, -5), (2, -5)$

8 $-6, -3$

9 $(1, 0), (7, 1), (7, 3)$

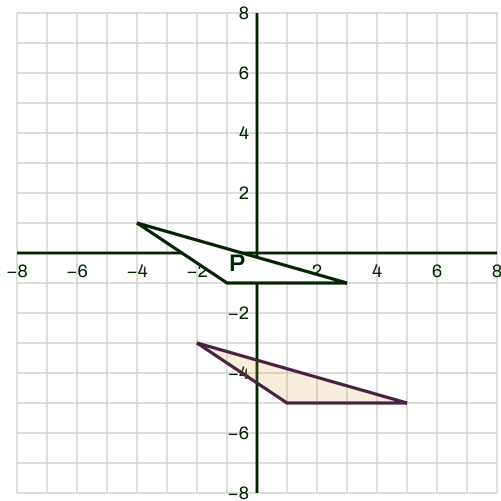
10 $(-1, -6), (-5, -5), (3, -4)$

3 A drawing



What counts as right: A triangle with vertices at $(0, 1)$, $(2, 2)$ and $(5, 0)$: every vertex of P moved 3 right and 4 up, joined by straight lines. It is the same size and shape as P and faces the same way. Moving 3 left and 4 up instead, or moving only some of the vertices, does not count.

6 A drawing



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