

Mixed Transformations: Perform

1

Reflect the shape in the mirror line.

squares to the line

P	Q	R
3		

2

Translate the shape by $\begin{pmatrix} 5 \\ 1 \end{pmatrix}$.

5	(right) / left
1	(up) / down

3

Rotate the shape 180° about the cross.

squares from the cross

P	3	up / down / (left) / right
P'		up / down / left / right

4

Translate the shape by $\begin{pmatrix} -4 \\ 2 \end{pmatrix}$.

4	right / (left)
2	(up) / down

5

Reflect the shape in the mirror line.

squares to the line

P	Q	R

6

Rotate the shape 180° about the cross.

squares from the cross

P		up / down / left / right
P'		up / down / left / right

7

A toy car is pushed across a mat by $\begin{pmatrix} 4 \\ -3 \end{pmatrix}$. Draw the car in its new place.

	right / left
	up / down

8

Shape A moves to shape B. Circle the move. Fill in the boxes.

reflected / rotated / translated

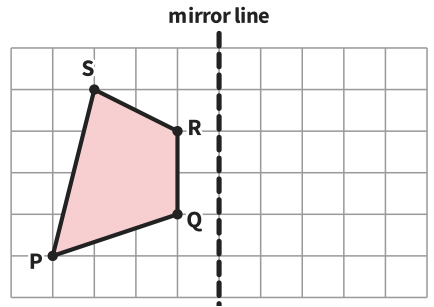
	right / left
	up / down

Mixed Transformations: Perform *further practice*

9



Reflect the shape in the mirror line.



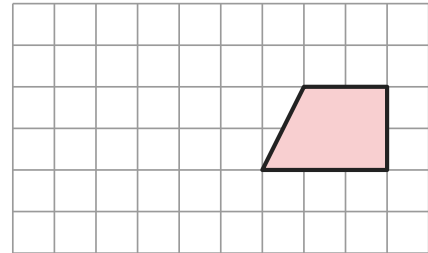
squares to the line

P	Q	R	S

10



Translate the shape by $\begin{pmatrix} -5 \\ 0 \end{pmatrix}$.

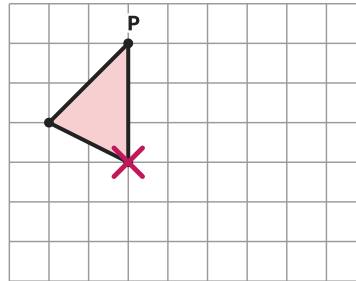


	right / left
	up / down

11



Rotate the shape 90° clockwise about the cross.



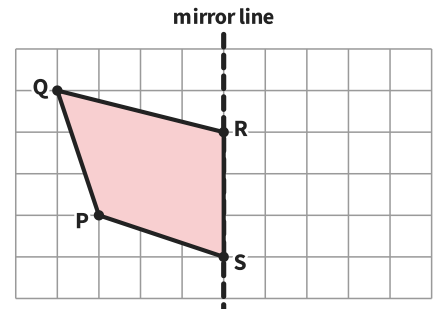
squares from the cross

P	up / down / left / right
P'	up / down / left / right

12



A butterfly has two wings. Reflect this wing in the mirror line.



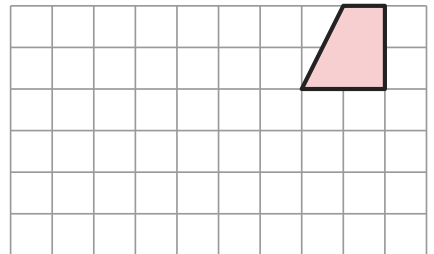
squares to the line

P	Q	R	S

13



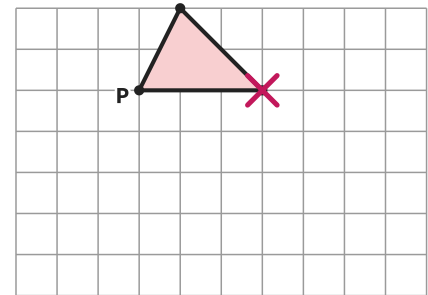
Translate the shape by $\begin{pmatrix} -6 \\ -3 \end{pmatrix}$.



14



Rotate the shape 180° about the cross.



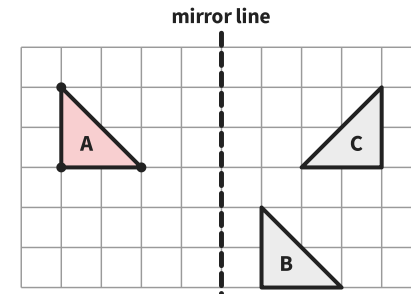
squares from the cross

P		
P'		

15



Which shape is a reflection of A in the mirror line? Which shape is a translation of A?



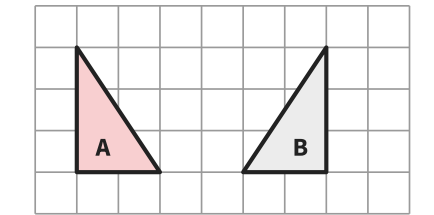
Reflection: shape _____

Translation: shape _____

16



Ravi was asked to translate shape A by $\begin{pmatrix} 4 \\ 0 \end{pmatrix}$. He drew B. What has he done wrong?



Ravi has _____ the shape.

He should _____ it 4 squares right.