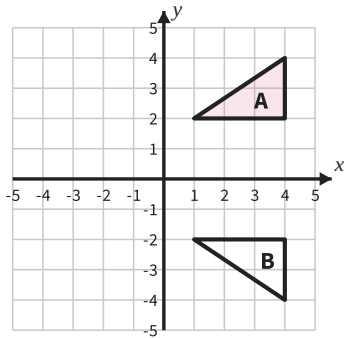
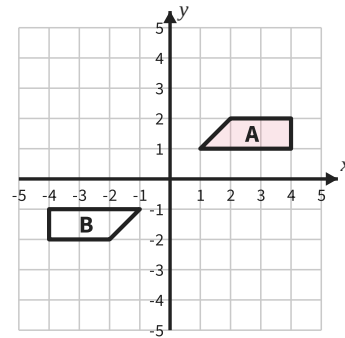


1
Describe fully the single transformation that maps A onto B.



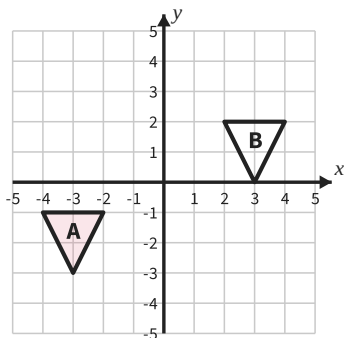
Reflection in the x-axis

2
Describe fully the single transformation that maps A onto B.



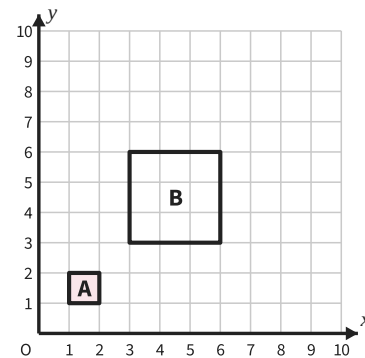
Rotation 180° about (0, 0)

3
Describe fully the single transformation that maps A onto B.



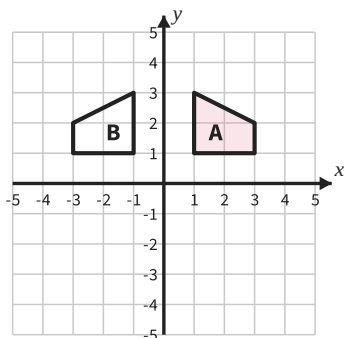
Translation by $\begin{pmatrix} 6 \\ 6 \end{pmatrix}$

4
Describe fully the single transformation that maps A onto B.



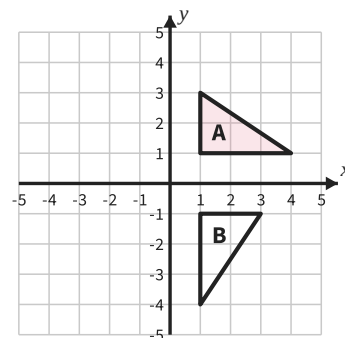
Enlargement, scale factor 3, centre (0, 0)

5
Describe fully the single transformation that maps A onto B.



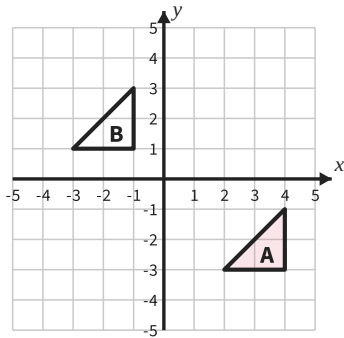
Reflection in the y-axis

6
Describe fully the single transformation that maps A onto B.



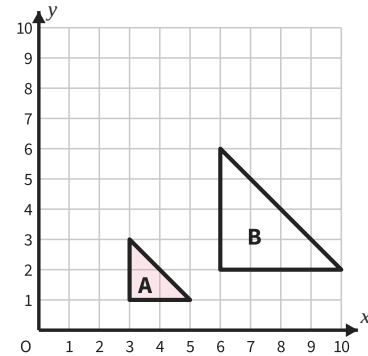
Rotation 90° clockwise about (0, 0)

7
Describe fully the single transformation that maps A onto B.



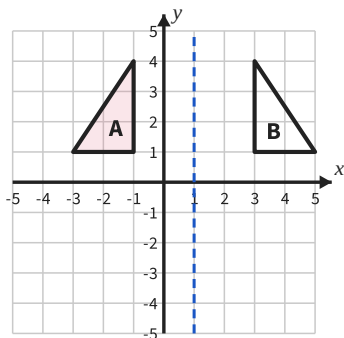
Translation by $\begin{pmatrix} -5 \\ 4 \end{pmatrix}$

8
Describe fully the single transformation that maps A onto B.



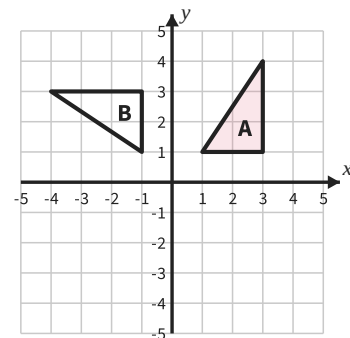
Enlargement, scale factor 2, centre (0, 0)

9
Describe fully the single transformation that maps A onto B.



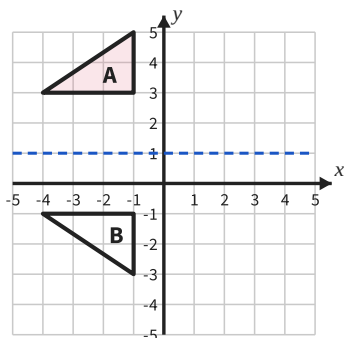
Reflection in the line $x = 1$

10
Describe fully the single transformation that maps A onto B.



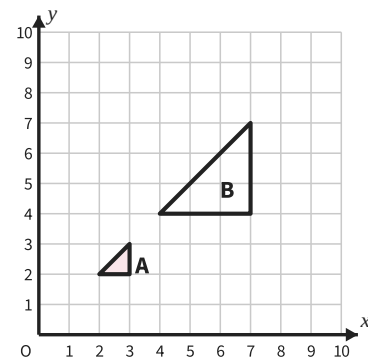
Rotation 90° anticlockwise about (0, 0)

11
Describe fully the single transformation that maps A onto B.



Reflection in the line $y = 1$

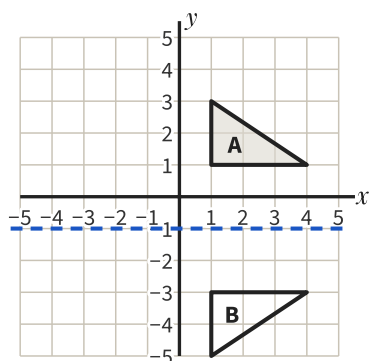
12
Describe fully the single transformation that maps A onto B.



Enlargement, scale factor 3, centre (1, 1)

13

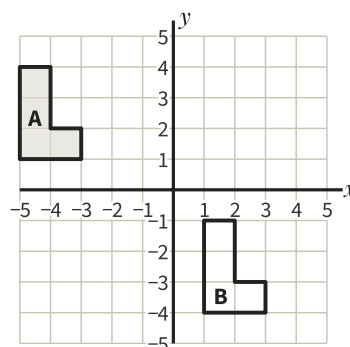
Describe fully the single transformation that maps A onto B.



Reflection in the line $y = -1$

14

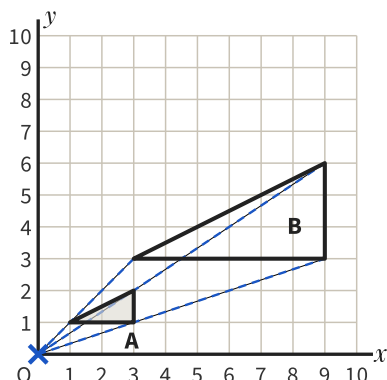
In a puzzle game, block A slides to B. Describe fully the single transformation that maps A onto B.



Translation by the vector $\begin{pmatrix} 6 \\ -5 \end{pmatrix}$

15

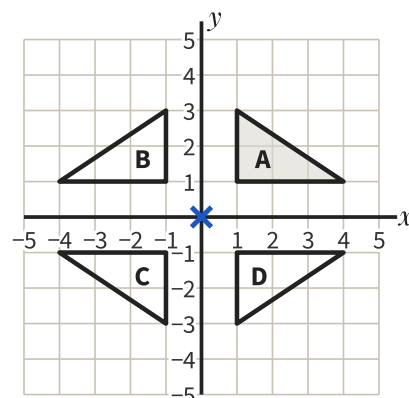
A photo on a phone is zoomed in from A to B. Describe fully the single transformation that maps A onto B.



*Enlargement, scale factor 3,
centre (0, 0)*

16

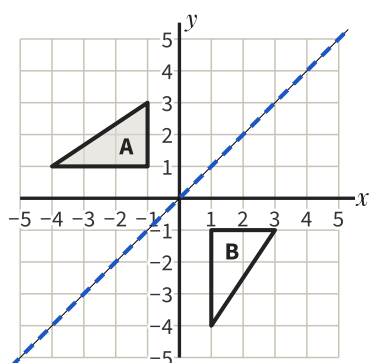
Which shape, B, C or D, is the image of A after a rotation of 180° about (0, 0)?



Answer *C*

17

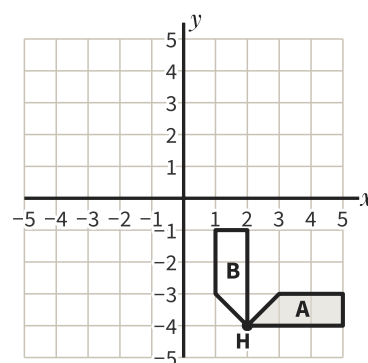
Describe fully the single transformation that maps A onto B.



Reflection in the line $y = x$

18

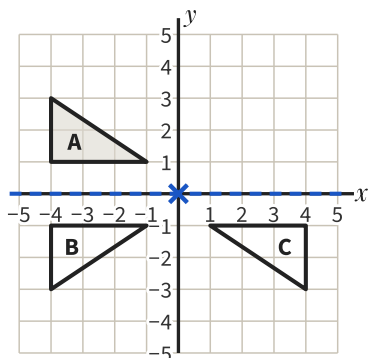
A car park barrier turns from A to B about its hinge H. Describe fully the single transformation that maps A onto B.



*Rotation 90° anticlockwise
about (2, -4)*

19

Describe fully the single transformation that maps
(a) A onto B (b) A onto C.

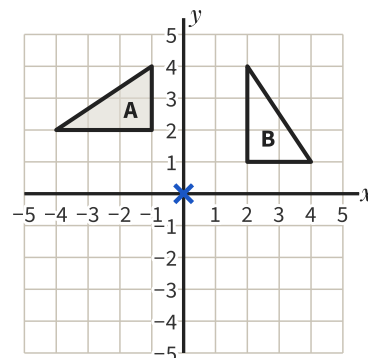


(a) Reflection in the x-axis

(b) Rotation 180° about $(0, 0)$

20

Sam writes "Rotation 90° about $(0, 0)$ ". What has Sam missed out? Write the full description.

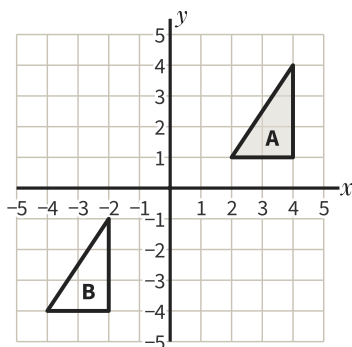


the direction: clockwise

Rotation 90° clockwise about $(0, 0)$

21

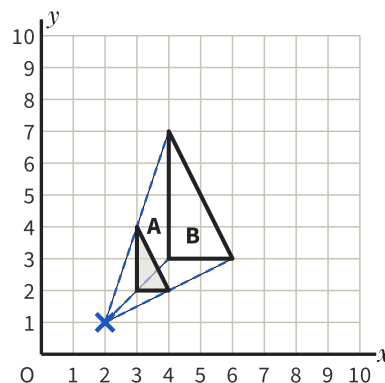
Describe fully the single transformation that maps B onto A.



Translation by the vector $\begin{pmatrix} 6 \\ 5 \end{pmatrix}$

22

Describe fully the single transformation that maps A onto B.

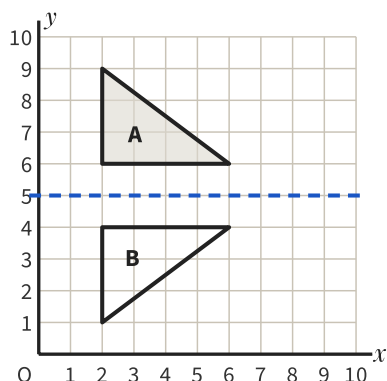


Enlargement, scale factor 2,

centre $(2, 1)$

23

Jo says this is a reflection in the line $x = 5$.
Explain Jo's mistake and give the correct answer.

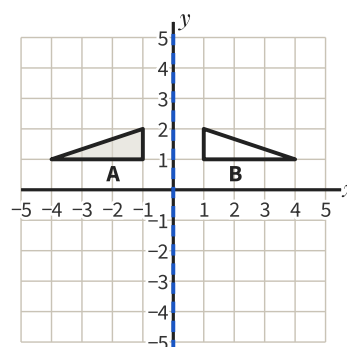


$x = 5$ is vertical; this mirror line is horizontal.

Reflection in the line $y = 5$

24

Ali says A to B is a translation by $\begin{pmatrix} 5 \\ 0 \end{pmatrix}$. Mia says it is a reflection in the y-axis. Who is right? Explain.



Mia. B is A flipped over (a mirror image).

A translation keeps the shape the same way round.