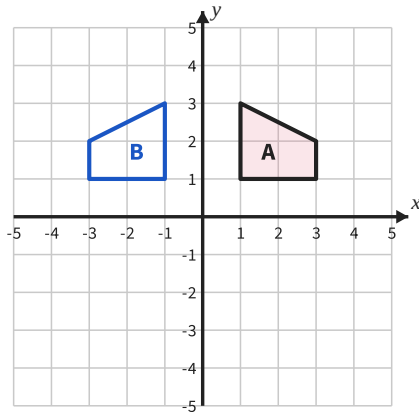
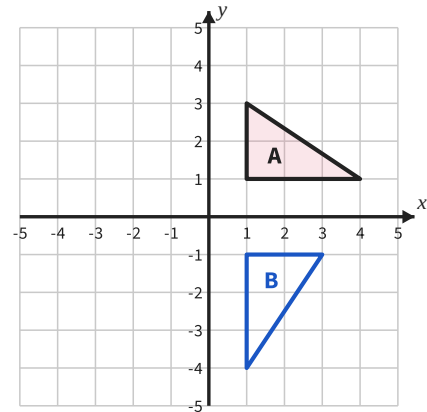


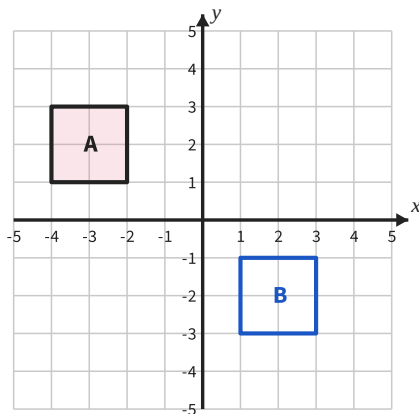
- 1** Reflect shape A in the y-axis. Label the image B.



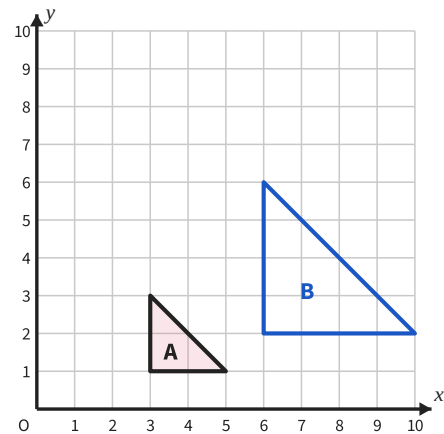
- 2** Rotate shape A 90° clockwise about (0, 0). Label the image B.



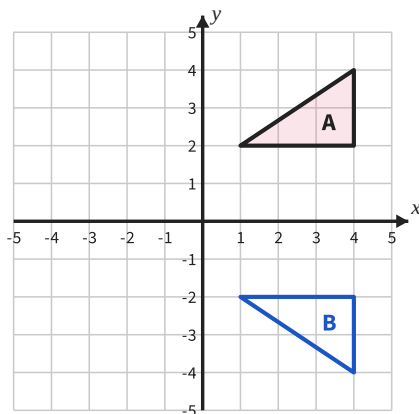
- 3** Translate shape A by the vector $\begin{pmatrix} 5 \\ -4 \end{pmatrix}$. Label the image B.



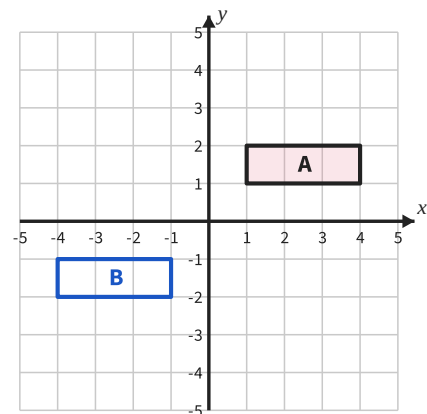
- 4** Enlarge shape A by **scale factor 2** about the point (0, 0). Label the image B.



- 5** Reflect shape A in the x-axis. Label the image B.

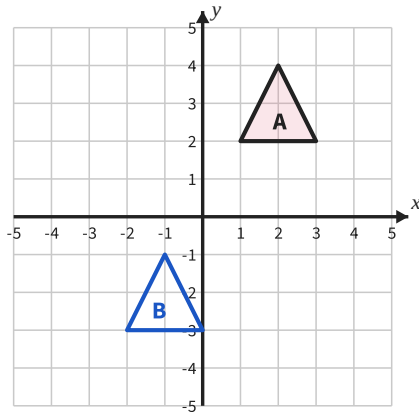


- 6** Rotate shape A 180° about (0, 0). Label the image B.



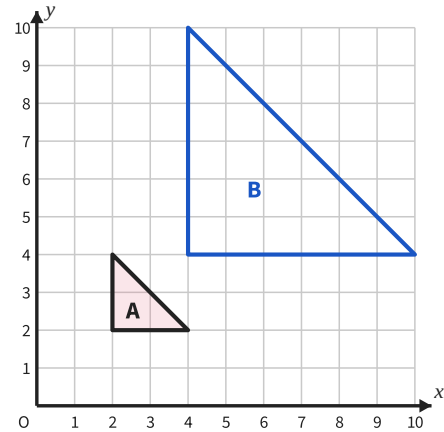
7

Translate shape A by the vector $\begin{pmatrix} -3 \\ -5 \end{pmatrix}$. Label the image B.



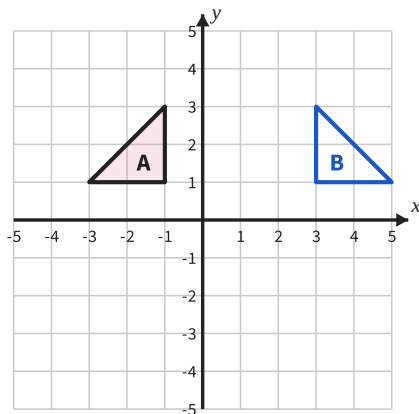
8

Enlarge shape A by **scale factor 3** about the point (1, 1). Label the image B.



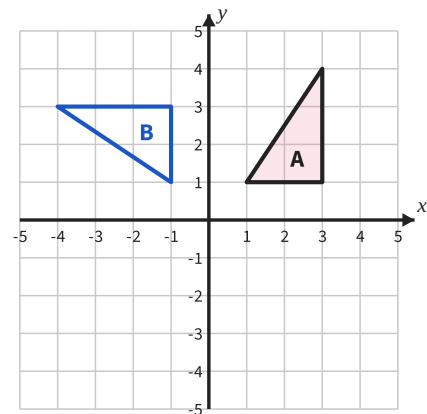
9

Reflect shape A in the line $x = 1$. Label the image B.



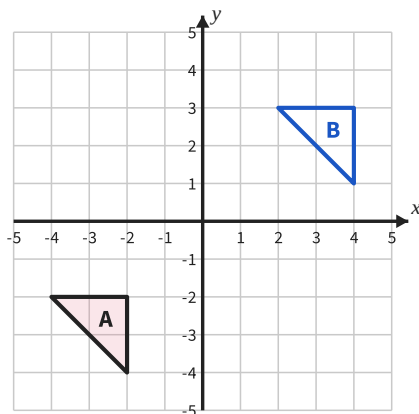
10

Rotate shape A **90° anticlockwise** about (0, 0). Label the image B.



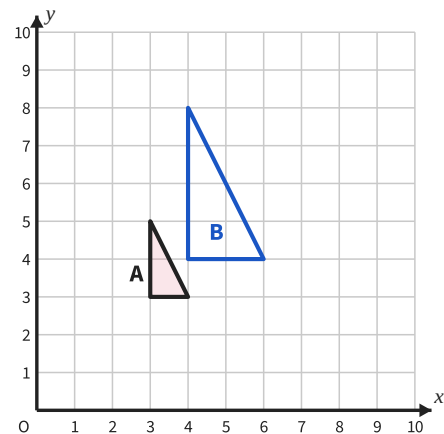
11

Translate shape A by the vector $\begin{pmatrix} 6 \\ 5 \end{pmatrix}$. Label the image B.



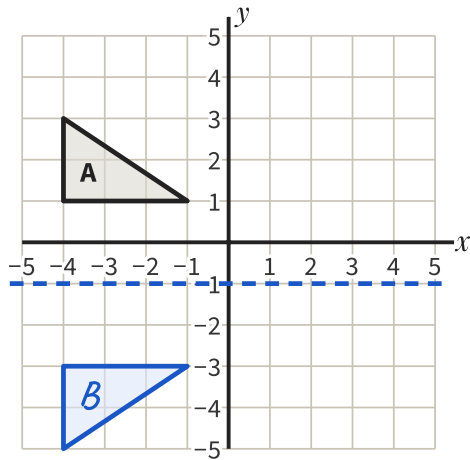
12

Enlarge shape A by **scale factor 2** about the point (2, 2). Label the image B.



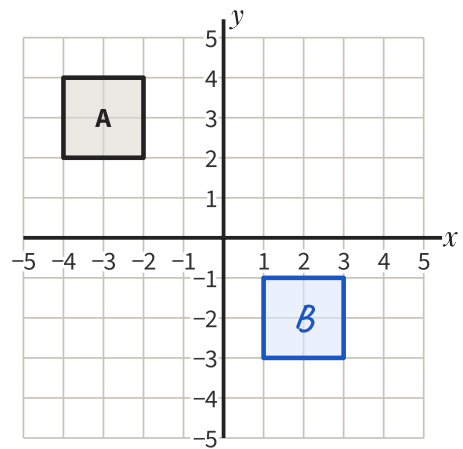
13

Reflect shape A in the line $y = -1$. Label the image B.



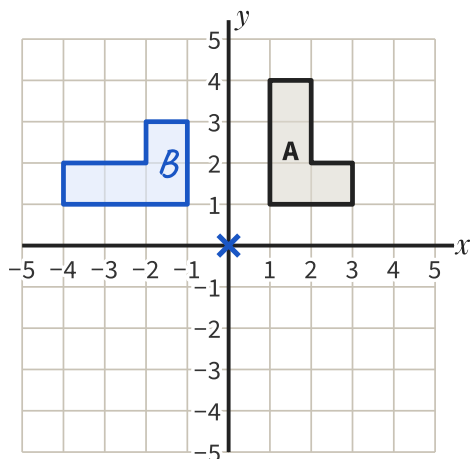
14

A crane moves crate A by the vector $\begin{pmatrix} 5 \\ -5 \end{pmatrix}$. Draw the crate in its new place and label it B.



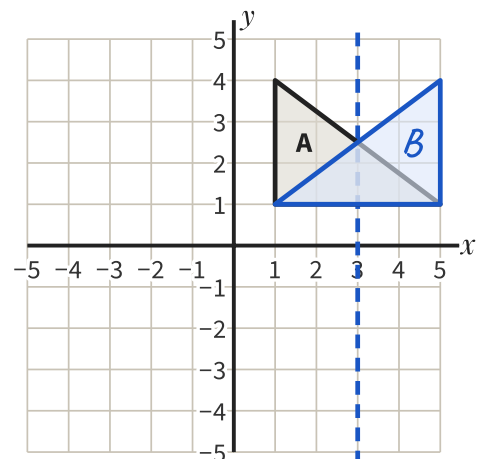
15

Rotate shape A 90° anticlockwise about $(0, 0)$. Label the image B.



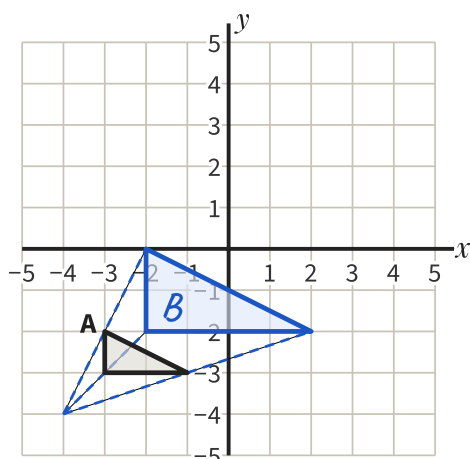
16

Reflect shape A in the line $x = 3$. Label the image B.



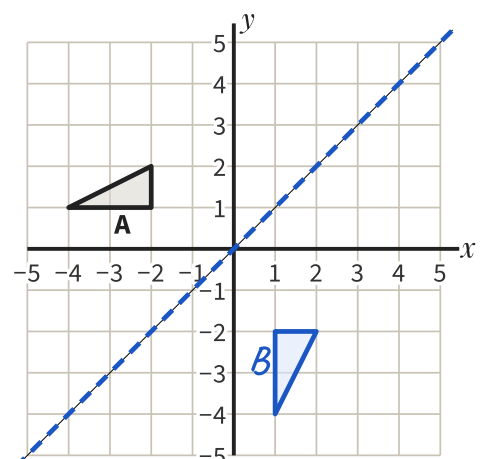
17

A poster designer enlarges logo A by scale factor 2 about the point $(-4, -4)$. Draw the new logo and label it B.



18

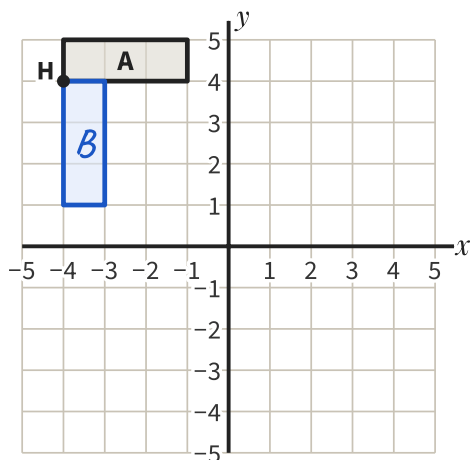
Reflect shape A in the line $y = x$. Label the image B.





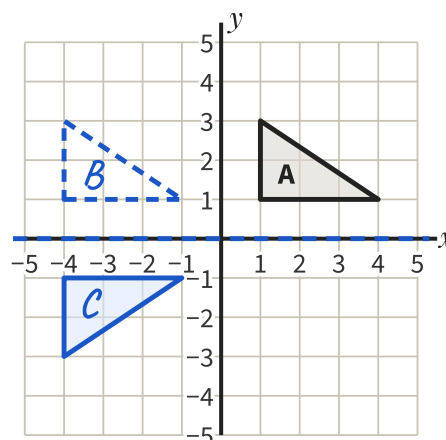
19

Gate A turns 90° clockwise about its hinge H $(-4, 4)$. Draw the gate in its new place and label it B.



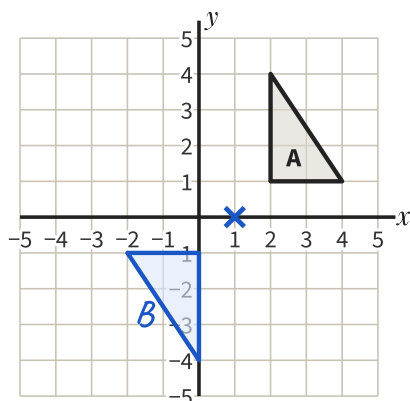
20

Translate shape A by the vector $\begin{pmatrix} -5 \\ 0 \end{pmatrix}$. Label the image B. Then reflect B in the x -axis. Label this image C.



21

Rotate shape A 180° about $(1, 0)$. Write down the coordinates of the corners of the image.

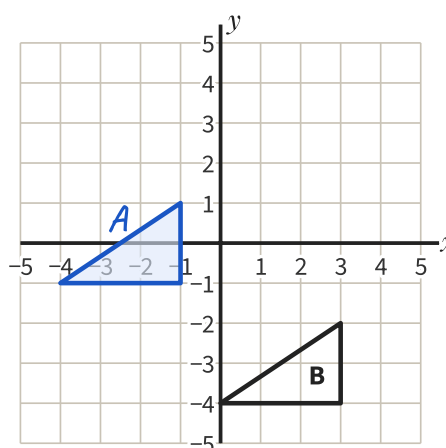


Corners

$(0, -1), (-2, -1), (0, -4)$

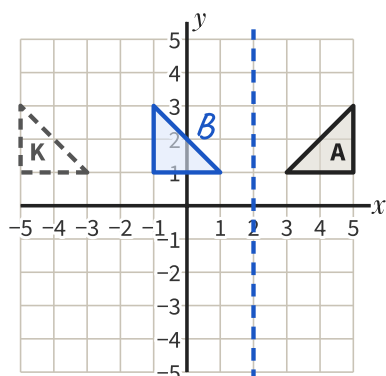
22

Shape B is the image of shape A after a translation by the vector $\begin{pmatrix} 4 \\ -3 \end{pmatrix}$. Draw shape A.



23

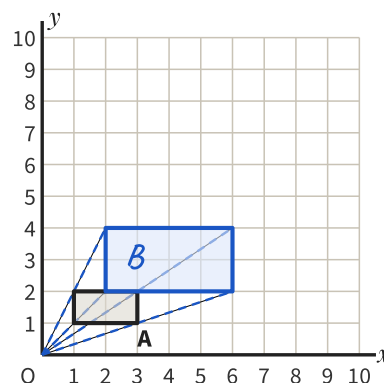
Kim reflects shape A in the line $x = 2$. Her answer is the dashed shape K. Explain her mistake. Then draw the correct image.



She reflected in the y -axis, not in $x = 2$.

24

Enlarge shape A by scale factor 2 about $(0, 0)$. Josh says the image has twice the area of A. Is Josh right? Explain.



No. A is 2 squares, the image is 8 squares:

4 times the area (twice as wide and twice as tall).