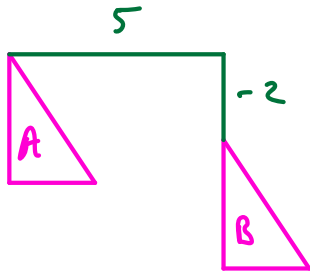


Transformations

Translations

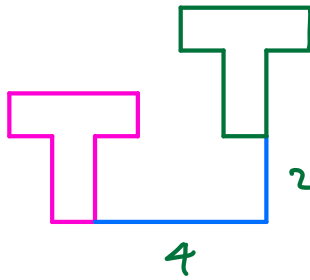
Ex 1



What transformation takes A to B

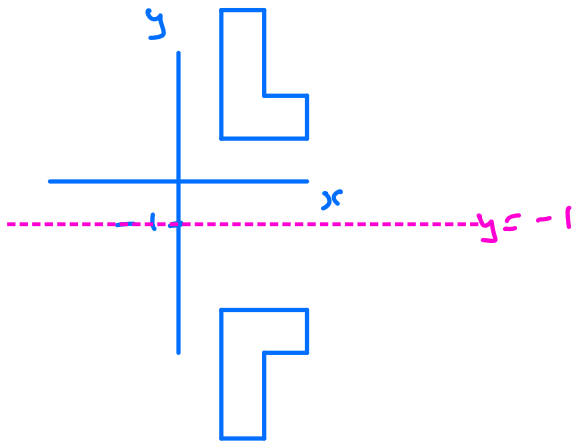
Translation by $\begin{pmatrix} 5 \\ -2 \end{pmatrix}$

Ex 2

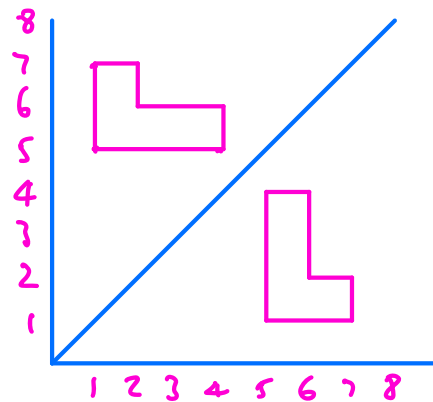


Translate T shape by $\begin{pmatrix} 4 \\ 2 \end{pmatrix}$

Reflections



Reflect in line $y = -1$



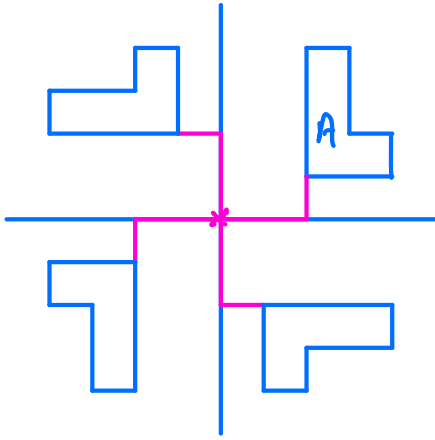
Reflect in line $y = x$

$$(x, y) \rightarrow (y, x)$$

Coordinates swap

$$(5, 1) \rightarrow (1, 5) \text{ etc}$$

Rotations



Rotate A

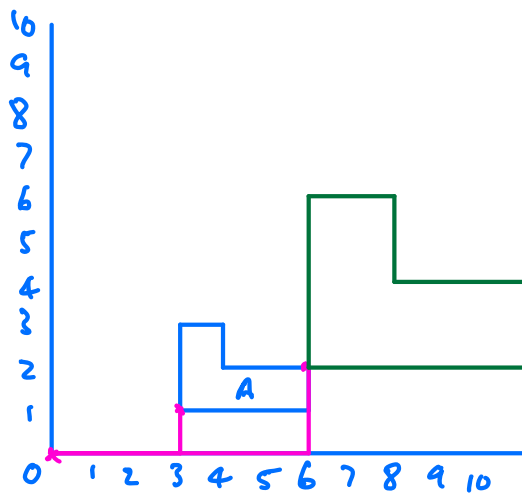
90° clockwise

180°

90° anti-clockwise

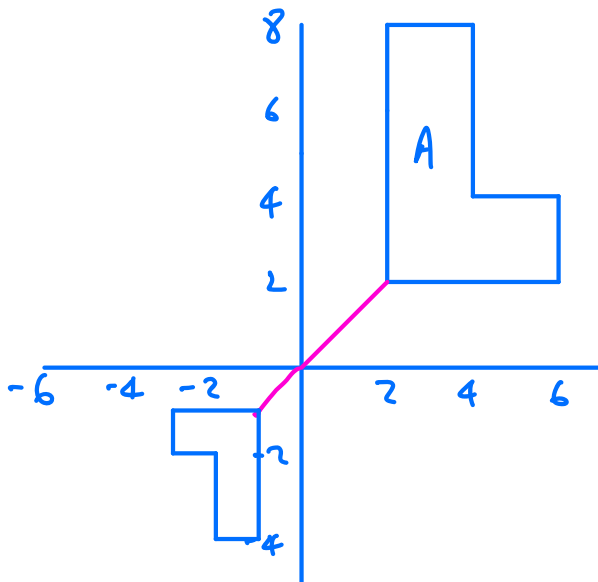
about origin

Enlargements



Enlarge by s.f. 2

about (0,0)



Enlarge by

scale factor $-\frac{1}{2}$

about (0,0)