



Shape A is translated by vector $\begin{pmatrix} 3 \\ -1 \end{pmatrix}$ to make Shape B.

Shape B is translated by vector $\begin{pmatrix} -5 \\ -2 \end{pmatrix}$ to make Shape C.

Describe the single transformation that maps Shape C to Shape A

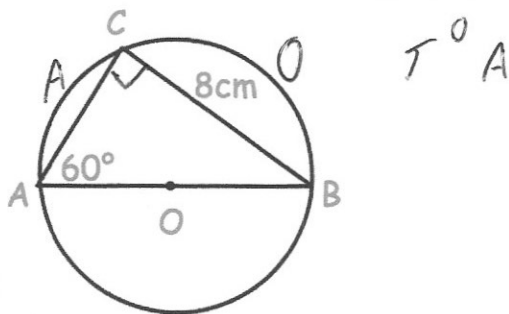
$$\vec{AB} = \begin{pmatrix} -2 \\ -3 \end{pmatrix} \quad \vec{CA} = \begin{pmatrix} 2 \\ 3 \end{pmatrix}$$

translation by $\begin{pmatrix} 2 \\ 3 \end{pmatrix}$

Work out the value of

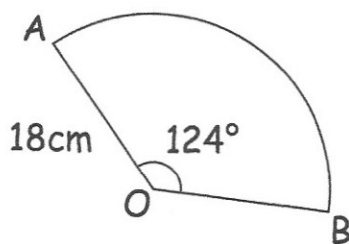
$$125^{\frac{2}{3}} \quad \sqrt[3]{125} = 5$$

$$5^2 = 25$$



Find AC.

$$\frac{8}{\tan 60} = 4.6188 \text{ cm}$$



Find the area of the sector.

$$\frac{124}{360} \times \pi \times 18^2$$

$$350.6 \text{ cm}^2$$

Write down the equation of a line perpendicular to $y = 5x + 3$

$$y = -\frac{1}{5}x + 8$$