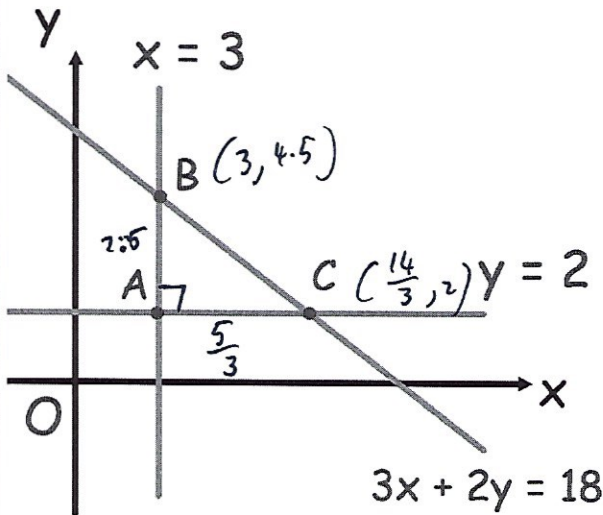


18th April



Corbettmaths

Shown below are the lines $x = 3$
 $y = 2$ and $3x + 2y = 18$



Find the area of triangle ABC

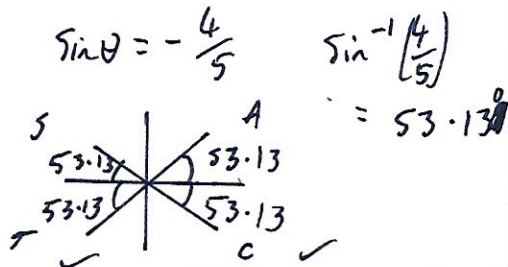
$A(3, 2)$

$B) \quad 9 + 2y = 18$
 $2y = 9$
 $y = 4.5$
 $(3, 4.5)$

$C) \quad 3x + 4 = 18$
 $3x = 14$
 $x = \frac{14}{3}$
 $(\frac{14}{3}, 2)$

$\frac{1}{2} \times \frac{5}{3} \times \frac{5}{2} = \frac{25}{12}$

Solve $5\sin\theta = -4$
for $0^\circ \leq \theta \leq 360^\circ$



$\theta = 233.13^\circ, 306.87^\circ$

Shape A maps to shape B by a rotation through 90° clockwise, centre the origin.

$\begin{pmatrix} 0 & 1 \\ -1 & 0 \end{pmatrix}$

Shape B maps to shape C by an enlargement, scale factor 2, centre the origin.

$\begin{pmatrix} 2 & 0 \\ 0 & 2 \end{pmatrix}$

Find the single transformation matrix that maps shape A to shape C.

$\begin{pmatrix} 2 & 0 \\ 0 & 2 \end{pmatrix} \begin{pmatrix} 0 & 1 \\ -1 & 0 \end{pmatrix} = \begin{pmatrix} 0 & 2 \\ -2 & 0 \end{pmatrix}$