Name: _____ 5-a-day Higher Plus

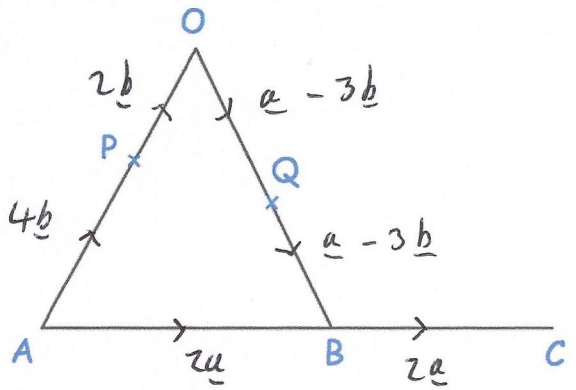
20th May

Corbettmaths

sin (x°) = –0.5

Write down 3 different possible values of x

210°, 330°
570°, 690° etc



AOB is a triangle.
P is a point on AO.

$\overrightarrow{AB} = 2a$ $\overrightarrow{AO} = 6b$ AP:PO = 2:1

Find the vector $\overrightarrow{OB}$

$-6b + 2a$

$2a - 6b$ $\overrightarrow{QB} = a - 3b$

Q is the midpoint of OB.
B is the midpoint of AC.
Show PQC is a straight line.

$\overrightarrow{PQ} = a - b$ $\overrightarrow{QC} = 3a - 3b$

$\overrightarrow{QC} = 3\overrightarrow{PQ}$

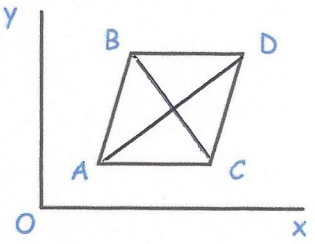
Since $\overrightarrow{QC}$ & $\overrightarrow{PQ}$ are parallel and both pass through Q, PQC is a straight line.

Solve the simultaneous equations

$x^2 + y^2 = 1$
$x + 2y = 1$

$x = 1, y = 0$

$x = -0.6, y = 0.8$



ABCD is a rhombus
The coordinates of B are (2, 15)
The equation of diagonal AD is $y = \frac{1}{2}x + 4$

Find the equation of diagonal BC

$y = -2x + c$

$15 = -4 + c$
$c = 19$

$y = -2x + 19$