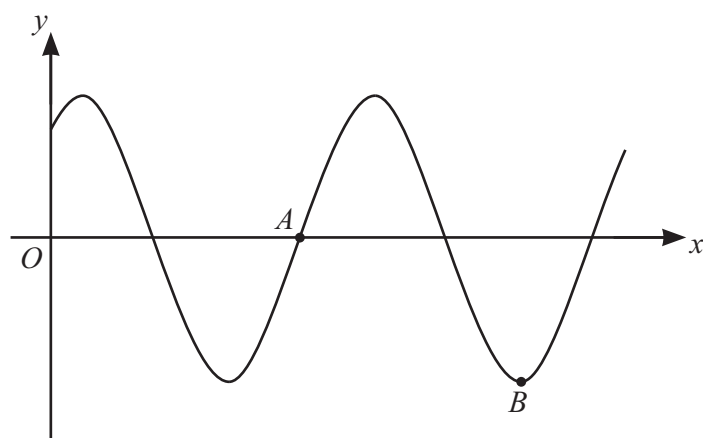


2 (a)



The diagram shows the curve $y = k \cos(x - \frac{1}{6}\pi)$ where k is a positive constant and x is measured in radians. The curve crosses the x -axis at point A and B is a minimum point.

Find the coordinates of A and B . [3]

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(b) Find the exact value of t that satisfies the equation

$$3 \sin^{-1}(3t) + 2 \cos^{-1}\left(\frac{1}{2}\sqrt{2}\right) = \pi. \quad [2]$$

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