

Exemplar P1 Q10

10. The gradient of a tangent to a curve is given by $\frac{dy}{dx} = 3 \cos 2x$.

The curve passes through the point $\left(\frac{7\pi}{6}, \sqrt{3}\right)$.

Find y in terms of x .

Answer

$$y = \frac{3}{2} \sin 2x + \frac{\sqrt{3}}{4}$$