11.1 Integrate \( \cos(3x + 4) \).

11.2 Integrate \((1 - 2x)^{10}\).

11.3 Integrate \(e^{4x-1}\).

11.4 Integrate \((4x + 3)^{-1}\).

11.5 Find the equation of the curve passing through the point \((1, 2)\) satisfying \( \frac{dy}{dx} = 2x \).

11.6 A particle has acceleration \((3t^2 + 4) \text{ ms}^{-2}\) at time \(t\) seconds. If its initial speed is \(5 \text{ ms}^{-1}\), what is its speed at time \(t = 2\) seconds?

11.7 Find the area between the graph of \(y = \sin x\) and the \(x\)-axis from \(x = 0\) to \(x = \pi/2\).

11.8 Find the area between the graph \(y = \frac{1}{x-1}\) and the \(x\)-axis between \(x = 2\) and \(x = 3\).

11.9 Find the signed area between the graph \(y = 2x + 1\) and the \(x\)-axis between \(x = -1\) and \(x = 3\).

11.10 Find \(y\), given that \(\frac{d^2y}{dx^2} = \sin x - \frac{4}{x^3}\).