

multiple choice questions

$$\begin{aligned} \textcircled{1} \quad \int_2^x (3t^2 - 1) dt &= t^3 - t \Big|_2^x \\ &= x^3 - x - (2^3 - 2) = x^3 - x - (6) \end{aligned}$$

\textcircled{A}

$$\textcircled{2} \quad \frac{dy}{dx} = \frac{1}{2x} \cdot 2 = \frac{1}{x} = \frac{1}{4} \quad \textcircled{B}$$