

Find the derivatives of the following functions

(i)  $f(x) = \sqrt{x}(2x^3 - 4) + 3x^{-1/4}$

(ii)  $y(x) = \frac{x(x^2 - 1)}{x^3 - 4}$

(iii)  $g(u) = 4u^{1/3}\sqrt{u^3 + 1}$ .