

1. Find the derivative, f' of the function f .

(a) $f(x) = (2x + 3)(5x^2 - 1)$

(b) $f(x) = (x^3 - 8x)(1 - x + 2x^3)$

(c) $f(x) = (1 - 3x^2) \left(1 - \frac{1}{x^2}\right)$

(d) $f(x) = \frac{3x - 2}{2x + 3}$

(e) $f(x) = \frac{\sqrt{x} - 1}{x + 1}$

(f) $f(r) = \frac{3r^2 - 7r}{2r - 5}$