Find the first derivative of the following functions

i) $f(x) = 3x^2 - 4$

ii) $f(x) = 7x^3 - 2x^2 + 5x + 1$

iii) $f(x) = \frac{2}{3}x^6 + \frac{1}{6}x^{-3} - \frac{1}{2}$

iv) $f(x) = ax^3 + b$

v) $y = \frac{5}{x}$

vi) $y = \frac{7}{x^4}$

vii) $f(x) = 4ax^2 - 3bx^{-2} + a^2$

viii) $f(x) = (4x - 2)x^3$

ix) $y = (x + \frac{a}{x}) \cdot (x - \frac{a}{x})$

x) $y = \frac{(2x - 1) \cdot (x + 2)}{x}$

xi) $y = \frac{x - a}{bx^3}$

xii) $x(x + 1) \cdot (x + 2)$

xiii) $y = (2x + 6)^3$

xiv) $y = (x + 5)^6$

xv) $y = (2x + 6)(5x - 7)$

xvi) $y = (2x + 6)^2 . (5x - 7)^3$

xvii) $y = -\sqrt{25 - x^2}$

xviii) $f(x) = 8\sqrt{3x^4 - 2x^2 + 1}$

xix) $f(x) = \frac{x^2 + 1}{3x^3 - 2x}$

xx) $f(x) = 4xe^{(x^2 + 4x)}$