

P. 218 #10a)

$$y = x^4 - 8x^2 + 7$$

$$y' = 4x^3 - 16x$$

$$y'' = 12x^2 - 16$$

10b) $y = \frac{3x-1}{x+1}$

$$y' = \frac{4}{(x+1)^2}$$

10c) $y = \frac{x^2+1}{4x^2-9}$

$$y' = \frac{-26x}{(2x-3)^2(2x+3)^2}$$

$$y'' = \frac{312x^2 + 234}{(2x-3)^3(2x+3)^3}$$

10d) $y = x(x-4)^3$

$$y' = 4(x-4)^2(x-1)$$

$$y'' = 12(x-4)(x-2)$$

10e) $y = \frac{x}{x^2-4x+4}$

$$y' = \frac{-x-2}{(x-2)^3}$$

$$y'' = \frac{2x+8}{(x-2)^4}$$

10f) $f(t) = \frac{t^2-3t+2}{t-3}$

$$f'(t) = \frac{t^2-6t+7}{(t-3)^2}$$