

$$\frac{dy}{dx} = \frac{-10}{(2x-1)^2} - \frac{4(1-10x)}{(2x-1)^3}$$

$$b) y = \frac{1}{2x} + \cos 2x$$

$$\frac{dy}{dx} = -x^{-2} + -\sin 2x$$

$$\frac{d^2y}{dx^2} = 2x^{-3} - 4\cos 2x$$

$$\frac{d^3y}{dx^3} = -6x^{-4} + 6\sin 2x$$

$$\frac{d^4y}{dx^4} = 24x^{-5} + 12\cos 2x$$

$$\frac{d^5y}{dx^5} = -120x^{-6} - 24\sin 2x$$

$$\frac{d^6y}{dx^6} = 720x^{-7} - 48\cos 2x$$

$$\frac{d^7y}{dx^7} = -5040x^{-8} + 96\sin 2x$$

$$\frac{d^8y}{dx^8} = 40320x^{-9} - 192\cos 2x$$