

$$7. (2x-y)^3 = x^2 + y - 13 \quad (1, 4)$$

$$\frac{d}{dx} [(2x-y)^3] = \frac{d}{dx} (x^2) + \frac{d}{dx} (y) + \frac{d}{dx} (-13)$$

$$3(2x-y)^2 \cdot \frac{d}{dx} (2x-y) = 2x + 1 \cdot y' + 0$$

$$3(2x-y)^2 \cdot (2 - 1 \cdot y') = 2x + y'$$

$$3(2x-y)^2 (2 - y') = 2x + y'$$

$$3(2x-y)^2 \cdot 2 + 3(2x-y)^2 \cdot (-y') = 2x + y'$$

$$6(2x-y)^2 - 3y'(2x-y)^2 = 2x + y'$$

$$6(2x-y)^2 - 2x = y' + 3y'(2x-y)^2$$

$$6(2x-y)^2 - 2x = y' (1 + 3(2x-y)^2)$$

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

$$\frac{6(2x-y)^2 - 2x}{1 + 3(2x-y)^2} = y' \quad \begin{matrix} (1, 4) \\ x \\ y \end{matrix}$$

$$m = \frac{6(2 \cdot 1 - 4)^2 - 2(1)}{1 + 3(2 \cdot 1 - 4)^2}$$

$$m = \frac{6(4) - 2}{1 + 3(4)}$$

$$m = \frac{24 - 2}{1 + 12}$$

$$m = \frac{22}{13}$$