١) مشتقة عدد ثابت

$$\frac{\partial}{\partial x}(5) = 0$$

$$\varphi = 5 \Rightarrow = 0$$

٢) مشتقة المتغير نفسه (x)

$$\varphi = 2x$$

$$\frac{\partial \varphi}{\partial x} = 2$$

$$\varphi = 6y$$

$$\frac{\partial \varphi}{\partial y} = 6$$

$$\varphi = y^{3} \Leftarrow \varphi = y^{2}$$

$$\frac{\partial \varphi}{\partial y} =$$

$$\varphi = 1x \Rightarrow \frac{\partial \varphi}{\partial x} = 1$$

قاعدة الأس

$$\Phi = 3x^2$$

$$\frac{\partial \Phi}{\partial x} = 3 \times 2 \times x^{2-1}$$

$$= 6x^1 \Longrightarrow 6x$$

$$\Phi = 4x^4$$

$$\frac{\partial \Phi}{\partial x} = 4 \times 4 \times x^{4-1}$$

$$= 16x^3$$

$$\Phi = 3y^1 = 3y$$

$$\Phi = 7 * x^3 \Rightarrow \Phi = 7x^3$$

$$\Phi = 3 \times 7 \, x^{3-1} = 21x^2$$

قاعدة الجمع والطرح

$$\Phi = (2x + 3x)$$

$$\frac{d\Phi}{dx} = 2 + 3 = 5$$

مشتقة القوس

$$\Phi = (3x+1)^4 \Rightarrow$$

$$\frac{d\Phi}{dx} = 4(3x+1)^3 \times 3$$

مشتقة ما بداخل القوس

$$= 12(3x+1)^3$$

مشتقة الدوال الأسية

$$u = x^{0.5}\, y^{0.5}$$

$$\frac{du}{dx} = 0.5\, x^{0.5-1}\, y^{0.5}$$

$$\frac{du}{dx} = 0.5\, x^{-0.5}\, y^{0.5}$$