

$$\text{iii) } y = \frac{1}{x^5} - \cos 3x$$

$$y = x^{-5} - \cos 3x$$

$$\frac{dy}{dx} = 6x^{-7} - (-3 \sin 3x)$$

$$\frac{dy}{dx} = 6x^{-7} + 3 \sin 3x$$

$$\text{iv) } y = e^{2x} \sin 3x$$

$$\frac{dy}{dx} = 2e^{2x} (3 \cos 3x)$$

$$\text{v) } y = \frac{\tan 7x}{\sin x}$$

$$\frac{dy}{dx} = \frac{7 \sec^2 7x}{\cos x}$$

$$\frac{\sin x (7 \sec^2 7x) - \tan 7x (\cos x)}{(\sin x)^2}$$