

degree

$$\left(\frac{d^2y}{dx^2} + a^2x\right) = 0$$

[MTH421] The differential equation corresponding to  $(y = ae^{3x} + be^x)$  is  $\left(\frac{d^2y}{dx^2} - 4\frac{dy}{dx} + 3y\right) = 0$

[MTH421] \_\_\_\_\_ is an example of a non-linear differential equation of 2nd order and 2nd degree

$$\left[1 + \left(\frac{dy}{dx}\right)^2\right]^{\frac{3}{2}} = \frac{d^2y}{dx^2}$$

[MTH421] The order and degree of the differential equation  $(\cos x \frac{d^2y}{dx^2} + \sin x \left(\frac{dy}{dx}\right)^2 + 8y = \tan x)$  are 2, 1

[MTH421] The order and degree of the differential equation  $(L \frac{d^2q}{dt^2} + R \frac{dq}{dt} + \frac{q}{C} = E \sin \omega t)$  are 2, 1

[MTH421] The solution of the differential equation  $\left(\frac{dy}{dx} + y = a^2\right)$  is given by  $(y + x = a \tan \left(\frac{y-c}{a}\right))$

[MTH421] \_\_\_\_\_ is an example of non-linear differential equation of 2nd order and 3rd degree

$$(x^2 \left(\frac{d^2y}{dx^2}\right) + y \left(\frac{dy}{dx}\right)^3 + y^4 = 0)$$

[MTH421] The differential equation of which  $(y^2 = 4a(x+a))$  is  $(y^2 - \left(\frac{dy}{dx}\right)^2 + 2xy \frac{dy}{dx} - y^2 = 0)$

[MTH421] An equation which involves \_\_\_\_\_ co-efficient is called a differential equation

Differential

[MTH421] The order and degree of the differential equation  $(\left[1 + \left(\frac{dy}{dx}\right)^2\right]^{\frac{3}{2}} = \left(\frac{d^2y}{dx^2}\right)^2)$  are 2, 2