



Differential Equations
Order and Degree
Practice Problems

Find the order and degree of the following Differential Equations:

$$1. \left(\frac{d^2y}{d^2x}\right)^2 + 5\left(\frac{dy}{dx}\right)^3 + y = 3y$$

$$2. \frac{d^2y}{d^2x} = 6x$$

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

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

$$5. \frac{d^5y}{d^5x} + \left(\frac{d^3y}{d^3x}\right)^5 + \frac{dy}{dx} + y = 0$$