## $\begin{array}{c} \textbf{Ordinary Differential Equations} \\ \textbf{\textit{Classification}} \end{array}$

## Question

For the following differential equation, give its order, and whether it is linear or non-linear. If it is linear, state whether it is homogenous or nonhomogenous.

$$\frac{dy}{dx} = 5y$$
**Answer**

Linear, 1st order, homogeneous.