## Ordinary Differential Equations Classification

## 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.
$y^{(4)}+e^{x} y^{\prime \prime}=x^{3} y^{\prime}$
Answer
Linear, 4th order, homogeneous.

