

Quiz 2

Name: _____

1. Verify that $y = e^{-4x}$ is a solution to the differential equation

$$\frac{dy}{dx} = -4y.$$

Note that $y' = -4e^{-4x} = -4y$, so this is indeed a solution.

2. Verify that $y = 2x + x^2$ is a solution to the differential equation

$$\frac{dy}{dx} = 2x + 2$$

The derivative is $y' = 2 + 2x = 2x + 2$, so this is definitely a solution.