

Please show **all** your work! Answers without supporting work will not be given credit.
Write answers in spaces provided.

Name: _____

1. [5 pts] Find the general solution for the following differential equation:

$$\frac{dy}{dt} = 8e^{-4t-y}$$

$y =$ _____

2. [5 pts] Find the general solution for the following differential equation:

$$\frac{da}{dx} = -a^2x$$

$a =$ _____