

1. Find an explicit solution to the following initial value problem.

$$\frac{dw}{dt} = 6e^{3t}, \quad w(0) = 10$$

$$w = 2e^{3t} + 8$$

2. Find an explicit solution to the following initial value problem.

$$\frac{dR}{dw} = 0.3R, \quad R(0) = 40$$

$$R = 40e^{0.3w}$$

3. Find an explicit solution to the following initial value problem.

$$\frac{dq}{dr} = \frac{10r^4}{q} \quad q(0) = 3$$

$$q = \sqrt{4r^5 + 9}$$