Name _____

Homework 24
Section 6.3

1. (7) Find the exact solution(s) to the initial value problem

$$\frac{dy}{dx} = x + \sin x, \quad y(0) = -2.$$

2. (6) Find the general solution to the differential equation $\frac{dy}{dx} = 6 - x^2 \frac{dy}{dx}$.

3. (7) Find the particular solution to the differential equation

$$\frac{dx}{dt} = 12t^3 + e^t + \frac{5}{t^2}$$

for which $x(1) = e$.