

Name: _____

1. A five gallon tank is full of water. We open a spigot so 1 gal. per minute (well-stirred) leaves the tank and introduce a mixture of 1/2 lb. per gal at 1 gal per minute. Assuming the mixture is well mixed, what's the concentration at time t?

2. Find the general solution to the equation

$$y' = \frac{(2y + 1)^2}{t^{1/3}}$$