1. Solve the following and circle you answer.

(a)
$$\frac{dA}{dt} = \frac{t}{3A^2 + 1}$$
 $A(0) = 1$ (You do not need to solve for A in terms of t)

(b)
$$y' = y(y+3)$$

2. Compute the following and circle you answer.

(a)
$$\int_0^3 \frac{x}{x^2 + 1} dx$$

(b)
$$\int \frac{3x+2}{x(x^2+1)} dx$$