1. Solve the following and circle you answer.
(a) $\frac{d A}{d t}=\frac{t}{3 A^{2}+1}$
$A(0)=1 \quad$ (You do not need to solve for $A$ in terms of $t$ )
(b) $y^{\prime}=y(y+3)$
2. Compute the following and circle you answer.
(a) $\int_{0}^{3} \frac{x}{x^{2}+1} d x$
(b) $\int \frac{3 x+2}{x\left(x^{2}+1\right)} d x$
