Full Name: _____

1. Find the general solutions of the following differential equations.

(a) $y = \sqrt[5]{3x^2 + C}$

(b) $y = -\dfrac{1}{\ln|x| + C}$

2. Find the solution that satisfies the given initial condition.

(a) $y = e^{2x+4}$

(b) $y = \tan^{-1}\left(\dfrac{1}{2}x^2 - \dfrac{1}{2}\right)$