

6. Consider the differential equation $\frac{dy}{dx} = \frac{1}{3}x(y - 2)^2$.

(b) Let $y = f(x)$ be the particular solution to the given differential equation with initial condition $f(1) = 0$.

Write an equation for the line tangent to the graph of $y = f(x)$ at $x = 1$. Use your equation to approximate $f(0.7)$.

(c) Find the particular solution $y = f(x)$ to the given differential equation with initial condition $f(1) = 0$.

STOP

END OF EXAM