



Differential Equations Assignment 2

The function $y = \frac{1}{x^2 + C}$ is a one-parameter family of solutions to the differential equation $y' + 2xy^2 = 0$.

(a) Find a solution to the Initial Value problem with initial condition $y(4) = \frac{1}{15}$.

(b) Find the largest interval I over which the solution is defined.



Solutions to Assignment 2

(a) $y = \frac{1}{x^2 - 1}$

(b) $(1, \infty)$