

NORTH SOUTH UNIVERSITY
Department of Mathematics and Physics
Course: Calculus and Analytical Geometry-I, Code: MAT 120–11
Spring 2022, Quiz # 02, Time: 20 minutes, Marks: 20
Uploaded Time: 05 minutes

Question1. Using definition find the derivative with respect to x of $f(x) = x^2 - 2x$ **06**

Question2. Show that if $x \neq 0$, then $y = \frac{1}{x}$ satisfies the equation **08**

$$x^3 y'' + x^2 y' - xy = 0$$

Question3. Find $f'(x)$ for **06**

$$f(x) = \left(\frac{1}{x} - \frac{1}{x^2}\right)(x^2 + 8)$$