



AUM

American University Of The Middle East

2020 SUMMER 2 ONLINE- MAT175-O1- ASSESSMENT 4

Name & Surname &ID:

There are 3 pages and 3 questions. To get the full credit please show all your work.

Q1] Find the derivative of

[30 pts]

$$f(x) = \sqrt{\sqrt{x} + \frac{1}{x^2} - 4x + 12}$$

Q2] Use the chain rule to find $\frac{dy}{dx}$

[30 pts]

$$y = 2u^2 - 3u + 1$$

$$u = x^3 - \sqrt{x}$$

Q3] Find the derivative of

[40 pts]

$$f(x) = \left(\frac{2x^2 + 3x}{x^2 - 1} \right)^3$$