



AUM

American University Of The Middle East

2020 SUMMER 2 ONLINE- MAT175-O1- ASSESSMENT 1

Name & Surname &ID:

There are 2 pages and 4 questions. To get the full credit please show all your work.

Q1] Find the value of $f(2) + g(3)$, where $f(x) = \frac{2x^2+3x-5}{x^3-2x+1}$ and $g(x) = \sqrt{x^2 + 6x + 9}$. [25pts]

Q2] Find the domain of each function given below: [25pts]

a. $f(x) = \frac{x^2+x-1}{x^2+7x+10}$

b. $f(x) = \sqrt{x^2 + 8x + 15}$

Q3] Let $f(x) = -2x^2 + 3x - 5$ and $g(x) = 2x - 1$ be two functions. Find the given compositions below: [25pts]

a. $(f \circ g)(x)$

b. $(f \circ g)(2)$

Q4] Answer the given questions for $f(x) = 2x^2 + 4x - 6$. [25pts]

a. Find the x and y intercepts

b. Find the vertex

c. Sketch the graph of f .