

Name and surname:

U number:

Calculus I - MAC 2311 - Section 007

Quiz 1

08/31/2017

- 1) [2.5 points] Find the domain of the following function (justify each step):

$$f : \mathbb{R} \rightarrow \mathbb{R}$$

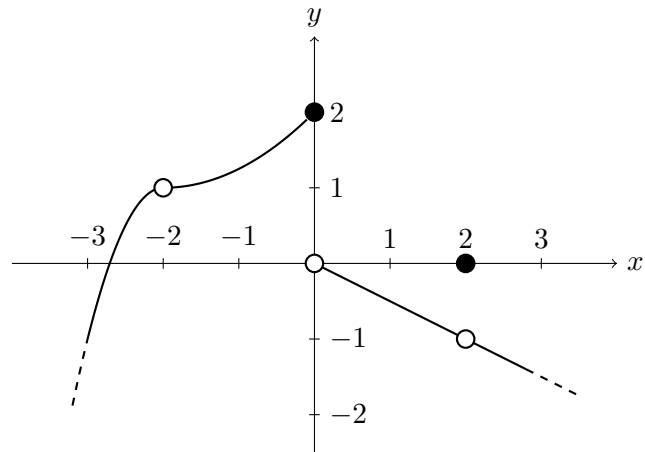
$$f(x) = \frac{x^3 + 2x}{x^2 - 3x + 2}$$

- 2) [2+3 points] Find the limit (justify each step):

a) $\lim_{x \rightarrow -1} \frac{4x^2 + 1}{x^2}$

b) $\lim_{x \rightarrow 0} \frac{\sqrt{x+1} - 1}{x}$

c) [0.5+0.5+1+0.5 points] The graph of a function f is given.



Use it to evaluate the following, when it is possible:

a) $\lim_{x \rightarrow 0^-} f(x) =$

b) $\lim_{x \rightarrow 0^+} f(x) =$

c) $\lim_{x \rightarrow 0} f(x) =$

Justify your answer:

d) $f(0) =$