

WRITE YOUR NAME:

MAC 2241 Quiz 2
Friday August 31st

Question 1. Find the domain of the function.

$$f(x) = \frac{2x^3 - 5}{x^2 + x - 6}$$

Domain is all x except where denominator is 0.

$$x^2 + x - 6 = 0$$

$$(x + 3)(x - 2) = 0$$

3 and -2
multiply to make -6
and add to make +1

$$x + 3 = 0 \quad \text{or} \quad x - 2 = 0$$

$$x = -3 \quad \text{or} \quad x = 2$$

Domain is all x except -3 and 2.

In interval notation: $(-\infty, -3) \cup (-3, 2) \cup (2, \infty)$