

**WRITE YOUR NAME:**

MAC 2311 Homework 3

Due in class, Friday September 29th

You can use more paper if necessary, but please STAPLE

**Question 1.** For each function, find the horizontal asymptotes, if there are any.

$$f(x) = \frac{2x - 7}{x^2 - 4x}$$

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

**Question 2.** What's the slope of the tangent line to the graph of  $y = x^2$  at the point where  $x = 3$ ?