MATH 120D
QUIZ 5
November 7, 2002

You may use a calculator to complete this quiz. No notes please. Show all work.

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1. (5 points) Consider the function

$$f(x) = \frac{x^3 + 3x^2 - 4x}{2x^3 + 20x}.$$

   (a) Find the horizontal asymptote of $f(x)$.

   (b) How many vertical asymptotes does the graph of this function have?
   (circle one)   0   1   2   3

   (c) Find the zeros of $f(x)$.

2. (5 points) An object moves along the edge of a circle with radius 7 inches. The object's linear velocity is 10 inches per second. Find the object's angular velocity in RPM.