MTH 132 Quiz # 2	Spring 99–Sec. 20 Corso	Name: _____	Please, be neat and show all your work; circle your answer.

1. For the function $f(x) = \dfrac{x^2 - 3x + 2}{x^3 - 2x^2}$ find the following limits:

   $\lim_{x \longrightarrow 0^+} f(x) =$ _____ $\lim_{x \longrightarrow 2^+} f(x) =$ _____ $\lim_{x \longrightarrow 2^-} f(x) =$ _____ $\lim_{x \longrightarrow 2} f(x) =$ _____.

   First, you may want to simplify the expression for $f(x)$.

pts: /4

2. (a) For what values of the constant b is

$$g(x) = \begin{cases} x & x \leq -2 \\ bx^2 & x \geq -2 \end{cases}$$

   continuous at every x?

   (b) Graph $g(x)$.

pts: /3

3. Write the equation of the tangent line to the graph of the function

$$y = f(x) = x^2 - 2x + 2$$

   at the point $P(1,1)$.

grade: /10

pts: /3