MA131 Fall 2013 **Section 06** **Quiz 3**

Name:_____ **Student Number:_____**

1. Remove the discontinuity of the following f by define the value for the discontinuous point.

a) $f(x) = \dfrac{x^4 - 1}{x - 1}$

b) $f(x) = \dfrac{(x^2 - 2x - 8)(x - 2)}{x^2 - 4}$

2. Find the horizontal and vertical asymptotes of the curve.

a) $y = \dfrac{5x + 4}{x - 7}$

b) $y = \dfrac{x^2 - x - 6}{x^2 - 4}$

3.Find an equation of the tangent line to the curve at the given point.

a) $y = x^3 - 3x + 2, \text{at}(1, 0)$

b) $y = \sqrt{x^2 - 3x + 3}, \text{at}(2, 1)$

a) $y = \dfrac{4x + 26}{x + 9}, \text{at}(1, 3)$

b) $y = \sqrt{9 - 5x}, \text{at}(1, 2)$