

King Fahd University of Petroleum and Minerals  
Department of Mathematics & Statistics  
MATH 0201  
Fall 2010  
Quiz 1

**Name:** \_\_\_\_\_

1. Consider the curve given by the following parametric equations:

$$x = 2t^3 + 3t^2 - 12t$$

$$y = 2t^3 + 3t^2 + 1$$

- (a) Find the equation of the tangent line at  $t = 0$

(b) Find the points on the curve where the tangent is horizontal or vertical