

**Calculus Worksheet #2 Unit 2 page 1** \_\_\_\_\_

**Write the equation of any line that contains the given point and is tangent to the given function. Give the point of tangency with each equation.**

1.  $(2, 3)$  ;  $f(x) = x^2$

2.  $(3, 0)$  ;  $f(x) = x^2 - 4x + 4$

3.  $(1, -2)$  ;  $f(x) = x^2 - 2x + 3$

## Calculus Worksheet #2 Unit 2 page 2

Write the equation of any line that contains the given point and is tangent to the graph of the given function. Give the point of tangency with each equation.

4.  $(-1, 5)$  ;  $f(x) = x^3 - 4x^2 + x + 2$

5.  $(2, -5)$  ;  $f(x) = x^3 - 6x^2 + 4x + 1$

6.  $(-3, -6)$  ;  $f(x) = x^3 + 3x^2 + 5x + 5$