

**Unit 2: Quiz Part A: REVIEW Radicals – no Calculator!**

**1. Simplify the following:**

a)  $\sqrt{50}$       b)  $\sqrt{7} - 3\sqrt{7}$       c)  $5\sqrt{3} - 4\sqrt{72} + \sqrt{150} + 2\sqrt{8}$

d)  $5\sqrt{3}(4 + 5\sqrt{3} - 2\sqrt{15})$       e)  $(\sqrt{2} + 5)(2 - \sqrt{2})$       f)  $\frac{4 \pm \sqrt{28}}{2}$

**Unit 2: Quiz Part B: REVIEW Quadratics -- Calculator Allowed!**

1. Determine the maximum or minimum value of the function  $q(x) = -2x^2 - 3x + 5$  and state the  $x$  – value for which this occurs, USING ALL THREE METHODS (Factoring, Partial Factoring, Completing the Square). State the domain and range of the Parabola.
2. Given  $p(x) = 3x - 7$  a) Calculate the value of  $p(2)$ . b) If  $p(x) = -9$ , calculate the value of  $x$ .
3. For each of the following, determine whether the relation is a function or not. Be prepared to justify your answer.  
a)  $3x^2 + y^2 = 9$       b)  $x = -3$       c)  $y = 0$       d)  $3x^2 - 6y = 9$       e)  $3x - 5y = 14$