

**QUIZ 5 – Math 105 – Fall 2007**  
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1. Complete the square  $-x^2 + 3x =$

2. Solve  $x(2 - x)(x - 1) \leq 0$

3. Find the line through  $(-5, 1)$  and slope 0

4. Avg. rate of change of  $\sqrt{x}$  from  $x = 0$  to  $x = 1$

5. Avg. rate of change of  $x^2$  from  $x = 1$  to  $x = 1 + h$

In 6,7,8 below, choose  $a, b, c, d$  in  $af(bx + c) + d$  so that the graph of  $f(x)$  is  
6. shifted 2 units to the left

7. flipped about the  $x$ -axis and shifted down by 1 unit

8. Expanded by a factor of 2 horizontally and flipped about the  $y$ -axis

9. Find the maximum value of  $2 + 4x - x^2$

10. Find  $x$  where  $x^2 - 2x + 3$  attains its minimum value