

On a separate sheet of paper, show all work and write final answers only on the wkst.

**Complete the Square.**

1.  $x^2 + 22x + \underline{121}$

5.  $x^2 + 8x + \underline{16}$

2.  $x^2 - 30x + \underline{225}$

6.  $x^2 - 20x + \underline{100}$

3.  $x^2 + 5x + \underline{6.25}$

7.  $x^2 - 14x + \underline{49}$

4.  $x^2 - \frac{1}{2}x + \underline{\frac{1}{16}}$

**Solve the following equations by completing the square.**

8.  $x^2 + 2x + 1 = 36$        $x = \underline{-7}$        $x = \underline{5}$

9.  $x^2 - 16x + 64 = 9$        $x = \underline{11}$        $x = \underline{5}$

10.  $x^2 - 14x + 49 = 81$        $x = \underline{-2}$        $x = \underline{16}$

11.  $x^2 + 6x + 9 = 1$        $x = \underline{-2}$        $x = \underline{-4}$

12.  $x^2 - 8x - 5 = 0$        $x = \underline{4 - \sqrt{21}}$        $x = \underline{4 + \sqrt{21}}$