Math 3 **3.5 Complete the Square** Unit 3

**Finding a Perfect Square Trinomial**

Steps for Completing the Square

**Step 1:** Move the constant “c” to the other side of the equation.

**Step 2:** If there is a number in front of the x2 term, then divide EVERYTHING by that number.

**Step 3:** Divide the “b” term by 2, and then square it.

**Step 4:** Add that new number to both sides of the equation.

**Step 5:** Shrink the left side of the equation to (x + 

**Step 6:** Square root both sides to get rid of the square. Remember to put a with the number on the right side.

**Step 7:** Get x by itself.

What number completes the square in each of the following?

1. 
2. 
3. 

**Solving Quadratic Equations by Completing the Square**

Solve each of the following quadratic equations by completing the square.

1. 
2. 
3. 
4. 

**In-Class Practice:** Solve the following quadratic equations by completing the square.

1. Solve for x: 
2. Solve for k: 
3. Solve for x: 
4. Solve for k: 

Solve the following equation using each method below: a2 + 14a = 51

|  |  |  |
| --- | --- | --- |
| **Factoring:** | **Quadratic Formula:** | **Complete the Square:** |
|  |  |  |