**GSE Algebra 1 8.5 – Complete the square Name: \_\_\_\_\_\_\_\_\_\_**

**Completing the Square Graphic Organizer**

**Step 1**: move the constant to the other side of the equal sign

$$x^{2}+6x+7=0$$

**Step 2:** divide the middle term (b) by 2, square that number, and then add that number to both sides of the equation

**Step 5**: solve for x

**Step 4**: take the square root of both sides

Reminder – square root has + and -

**Step 3:** “cheat” factor and simplify the right side of the equation

Let’s try some more.

1. $x^{2}-2x-15=0$ 2. $x^{2}+2x-8=0$
2. $x^{2}-2x-1+2$ 4. $ x^{2}+3x=40$

5. $7x^{2}+14x+24=9$ 6. $6x^{2}-12x-90=0$