

## Day 2 HOMEWORK

Period \_\_\_\_\_

Convert each of the following standard quadratic expressions into vertex form by completing the square. ALL answers should be in improper and reduced fractions, when necessary.

1)  $x^2 + 2x - 3$

2)  $x^2 - 6x - 19$

3)  $x^2 - 12x + 44$

4)  $v^2 + 6v + 40$

5)  $x^2 - 8x + 25$

6)  $k^2 + 6k + 9$

7)  $n^2 + 3n - 5$

8)  $k^2 - 5k - 7$

9)  $x^2 + 9x - 3$

10)  $v^2 - 13v + 12$

11)  $5p^2 + 10p - 70$

12)  $10r^2 - 20r + 10$

13)  $9x^2 + 18x - 72$

14)  $-r^2 + 16r - 29$

15) BONUS (only get points if answer is all improper and reduced fractions) :  
 $2n^2 - 7n - 1$

**Put each quadratic expression into standard form.**

16)  $(x + 4)^2$

17)  $(3n + 2)(4n - 1)$

18)  $(-3x + 4)(-3x - 4)$

19) Describe (in words) the steps to solve the following equation:

$$4x^2 - 2 = 14$$

20) How do you think your steps to the previous problem would change if the following was the equation:

$$4(x - 1)^2 - 2 = 14$$