Name _____ Period _____

Find the perfect square quadratic that is closest to the given quadratic and then adjust it to be equal to what you are given. Once you have it written in this format state the vertex of the parabola that goes with the given quadratic. (Draw the squares as needed to check your work.

1. $f(x) = x^2 - 2x - 8$

2. $f(x) = x^2 + 4x - 4$

3. $f(x) = x^2 - 5x + 4$

4. $f(x) = x^2 + 4x + 10$

5. $f(x) = 2x^2 - 12x + 6$

6. $f(x) = x^2 + 3x - 18$

7. $f(x) = x^2 - 4x + 8$

8. $f(x) = 2x^2 - 12x + 16$

9. $f(x) = 3x^2 + 9x + 3$

10. $f(x) = x^2 - x + 5$

11. $f(x) = 3x^2 + 9x + 6$

12. $f(x) = x^2 - 4x + 4$