After Exam 4

Show all work in the space provided. No decimals.

1) What is the constant that when you add to the binomial, $x^2 - 10x$ makes the expression a perfect square trinomial? After the constant is found, factor the trinomial.

Find the vertex, x, y intercepts of the graphs that represents the quadratic functions

2) $f(x) = x^2 - 2x - 3$

3) $f(x) = 4 - (x-1)^2$

4) Write the quadratic equation in standard form with the given solution set: $\left\{-2\sqrt{5},\ 2\sqrt{5}\right\}$

5) What is the discriminant for $x + 2x^2 - 3 = 0$. Using the discriminant, determine the number and type of solutions.

Simplify completely:

6) $-2-\sqrt{-18}$

7) $-\sqrt{-108}$

Solve the equation. Use and identify each method discussed in class at least once.

8) $(3x-2)^2=10$

9) $6x^2=1+2x$

10) $(2x-5)(x+1)=2$

11) $2x^2+3x=5$