Quadratic Functions 2

Algebra 2

Give the quadratic, linear, and constant terms of the following equations.

1) $y = 5x + 11$ 2) $d = 12c^2$ 3) $k = 7j^2 - 13j + 11$ 4) $y = 2x^2 + 4x$

Give the values of a, b, and c in the following quadratic equations.

5) $w = 2v^2 + 6v - 10$ 6) $y = 5x^2 - 12$ 7) $b = 2a$ 8) $y = (x + 7)(3x - 13)$

9) What is the graph of an equation?

Graph the following quadratic equations by finding the vertex and two other points using a t-table.
(I recommend finding the y-intercept.) Check at least one of the points to make sure it satisfies the equation.

10) $y = \frac{1}{2}x^2 - 2$ 11) $y = x^2 + 4x - 5$ 12) $y = -2x^2 - 3x + 9$

Graph the following quadratic equations by finding the vertex and two other points using function notation.
(I recommend finding the y-intercept.) Check at least one of the points to make sure it satisfies the equation.

13) $f(x) = x^2 - 12x + 27$ 14) $f(q) = -2q^2 - 12q - 24$ 15) $f(r) = 3r^2 - 10r + 8$

Graph the following equations labeling the vertex, and the x and y-intercepts.

16) $f(x) = x^2 - 2x - 8$

17) $y = x^2 - 6x + 11$

18) $f(c) = -3c^2 + 9c$

19) $f(x) = \frac{1}{2}x^2 + 5x + 8$

Solve the following equations.

20) $0 = v^2 - 9v + 8$

21) $0 = x^2 + 14x + 49$

22) $0 = 5b^2 - 20$

23) $0 = 9c^2 - 4$

24) $0 = 12x^2 + x - 6$

25) $0 = 10x^2 - 15x - 70$