

Blast from the past 2

Name: _____

1. For each of the quadratic equations below: Write the **coordinates of the x and y- intercepts**, write the coordinates of **the vertex**. Write the equation in **graphing (vertex) form**. **Sketch the graph** of each parabola on its own set of axes. Place values of important points (y & x-intercepts & vertex) in your sketch.

1) $y = 2(x - 1)(x + 3)$

2) $y = x^2 + 4x - 12$

x-intercept(s):

y-intercept:

Vertex:

Equation in vertex form:

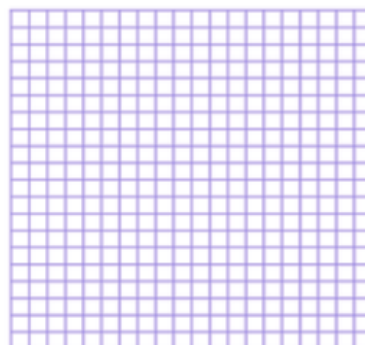


x-intercept(s):

y-intercept:

Vertex:

Equation in vertex form:



9. **Solve** the following quadratics using any algebraic method, including the quadratic, formula if needed. Answers in radical form are ok, if apply.

$0 = x^2 - x - 30$

b. $0 = 25x^2 - 15x$

c. $0 = -3x^2 + 2x + 1$ $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

10. a) Determine the **discriminant** of $x^2 + 2kx + 3 = 0$

Discriminant is $\Delta = b^2 - 4ac$

- b) Hence, find **all values of k** for which the equation has

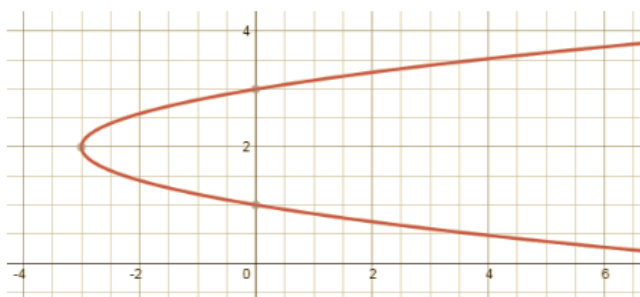
1. No real roots

2. Exactly one root

3. Two distinct real roots

11. Find **the equation** of the following. Make sure you find the correct stretch factor “a”. Look at the scale.

a)



b)

