

SM3-A HW #12-4 (quadratic formula)

Date _____ Period _____

1) a) How was the quadratic formula developed? (Write one or two sentences)

b) What is the purpose of using the quadratic formula?

Solve each equation with the quadratic formula.

2) $3v^2 + 7v - 10 = 0$

3) $5b^2 - b - 46 = 2$

4) $9n^2 - 12n - 17 = 0$

5) $2k^2 - 8k - 7 = 0$

6) $2n^2 + 5n + 4 = 0$

7) $2x^2 - x + 5 = 0$

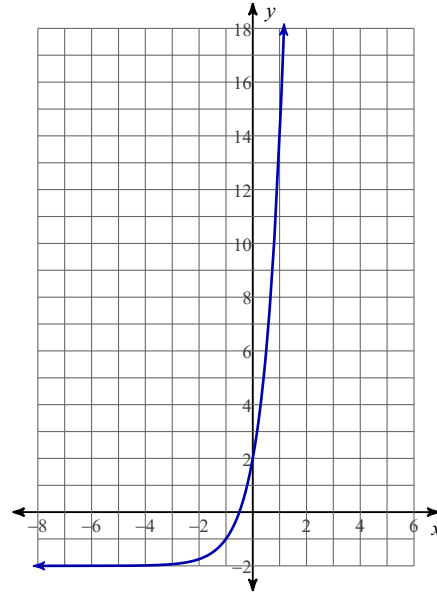
8) Write the equation of a line passing through: $(0, 4)$ and $(-4, -2)$ 9) Write the equation of a line passing through $(2, 5)$ and $(-3, 5)$

- 10) a) Give the domain in interval notation.
 b) Give the range in interval notation.
 c) what is the endpoint of the graph?

$$y = -2\sqrt{x-2} + 5$$

Write the equation of the the graph that passes through (0, 2) and (1, 14)

11)



- 12) Convert the following equation into vertex form.

$$f(x) = x^2 + 7x + 3$$

- 13) Convert the following equation into vertex form.

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

- 14) Convert the following equation into vertex form.

$$f(x) = 3x^2 + 12x - 35$$

- 15) Convert the following equation into vertex form.

$$f(x) = 5x^2 - 20x - 1$$