

**Assignment**

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1) 8.1 I can identify quadratic functions and graphs.

1) Define a quadratic function:

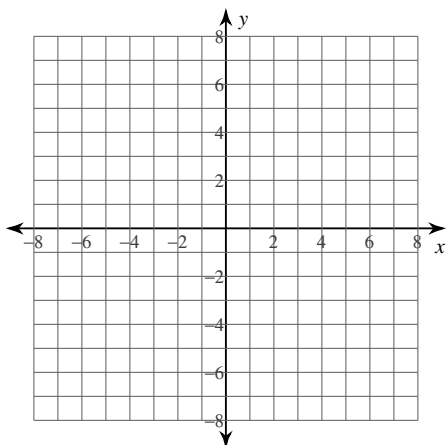
2) What is the graph of a quadratic called?

3) List three examples of quadratic functions

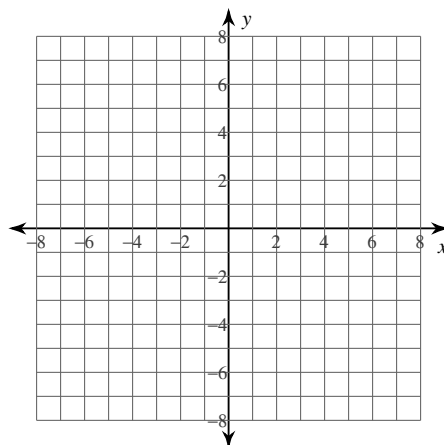
4) List three nonexamples of quadratic functions

**8.2 I can graph quadratic functions in vertex form.**

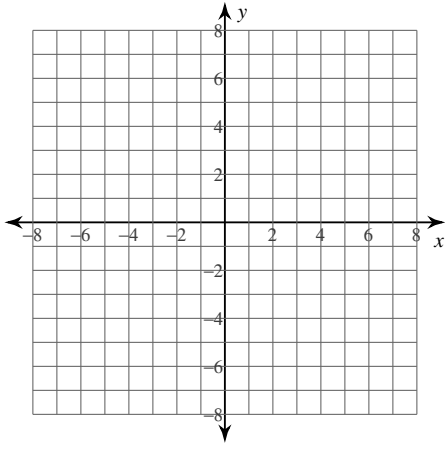
2)  $y = (x + 5)^2 - 2$



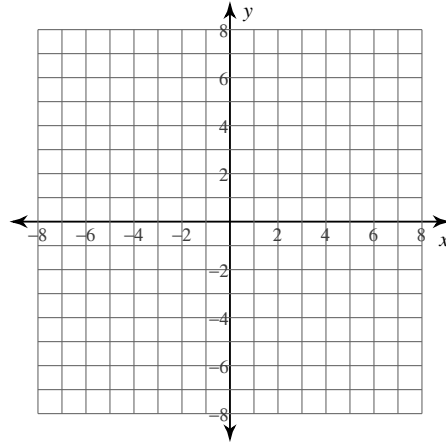
3)  $y = -(x + 5)^2 + 3$



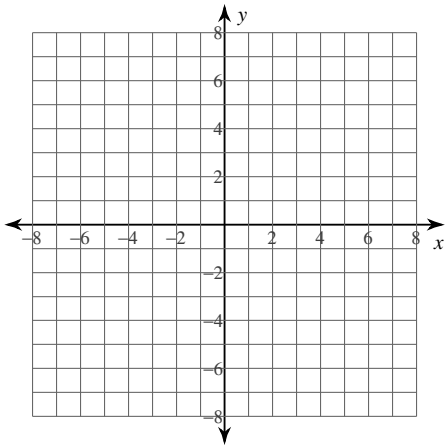
$$4) y = 2(x - 1)^2 - 3$$



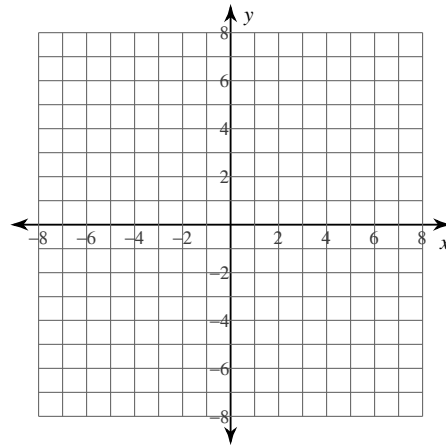
$$5) y = -2x^2 - 4$$



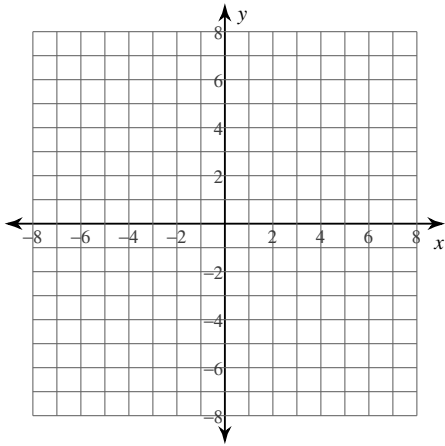
$$6) y = -(x + 6)^2 - 2$$



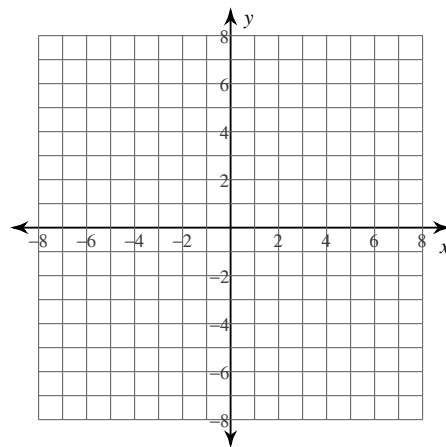
$$7) y = -(x - 3)^2 - 3$$



$$8) y = 2(x + 1)^2 - 1$$

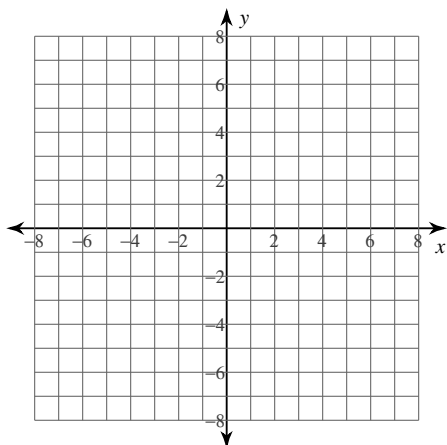


$$9) y = -\frac{1}{2}(x - 6)^2 + 2$$

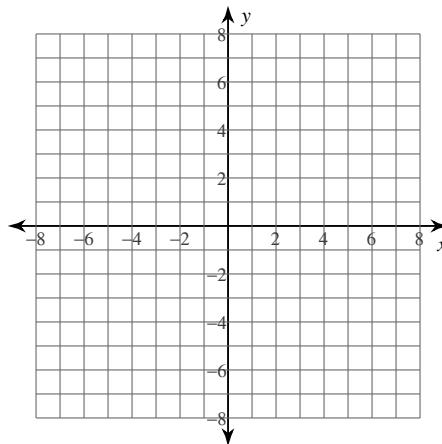


### 8.3 I can graph quadratic functions in standard form.

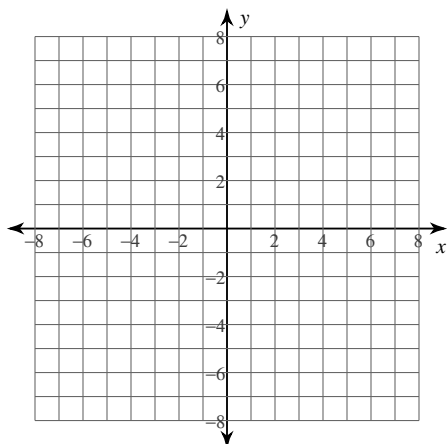
10)  $y = -2x^2 + 16x - 38$



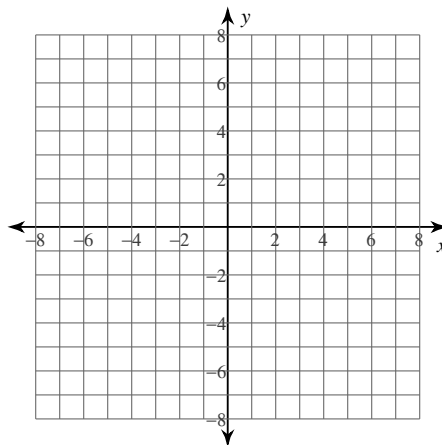
11)  $y = \frac{1}{4}x^2 + x + 7$



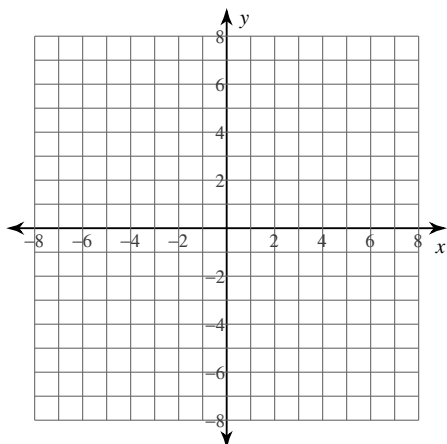
12)  $y = x^2 + 6x + 10$



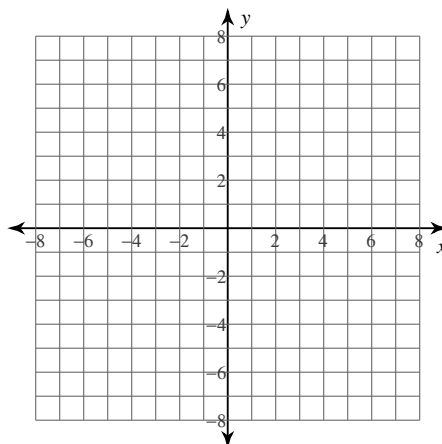
13)  $y = -\frac{1}{3}x^2 - \frac{8}{3}x - \frac{28}{3}$



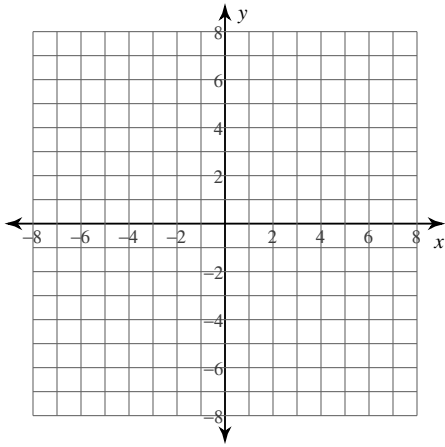
14)  $y = -\frac{1}{3}x^2 - 2x - 5$



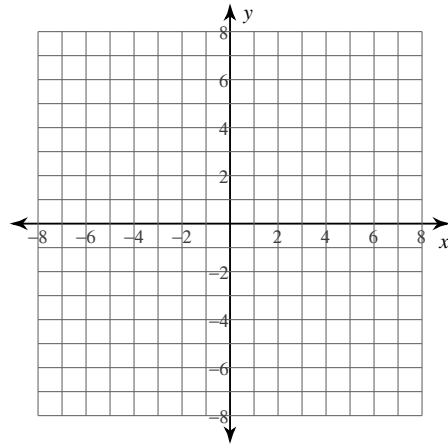
15)  $y = -\frac{1}{2}x^2 + 2x - 7$



$$16) y = x^2 + 2x - 3$$

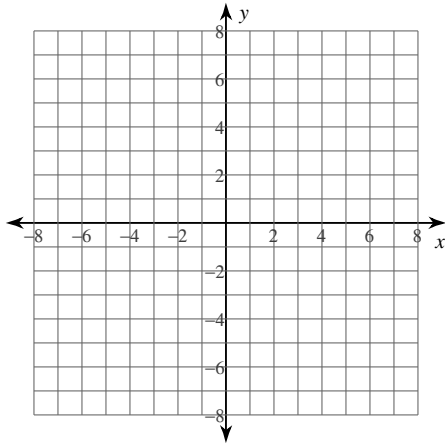


$$17) y = x^2 - 8x + 18$$

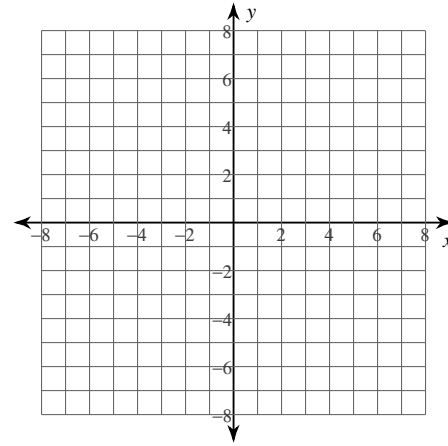


#### 8.4 I can graph quadratic functions in intercept form.

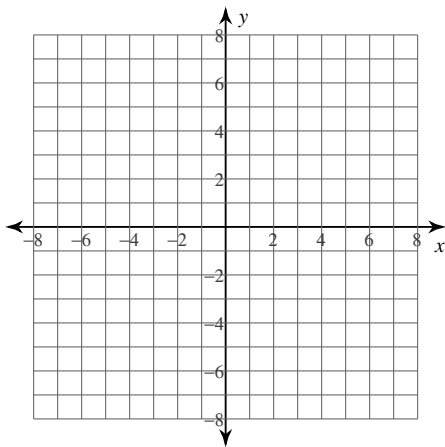
$$18) y = (x - 2)(x + 1)$$



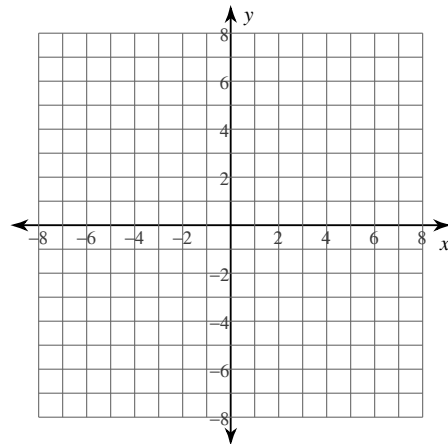
$$19) y = (x - 5)^2$$



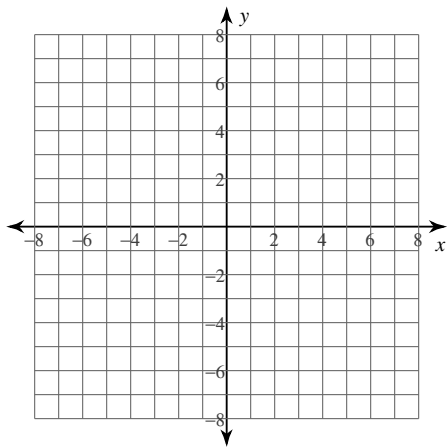
$$20) y = -\frac{1}{2}(x - 6)(x - 5)$$



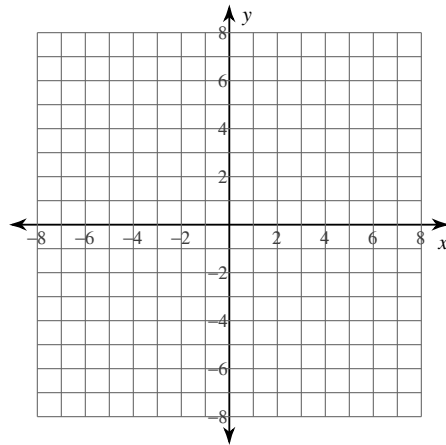
$$21) y = -(x + 6)(x + 4)$$



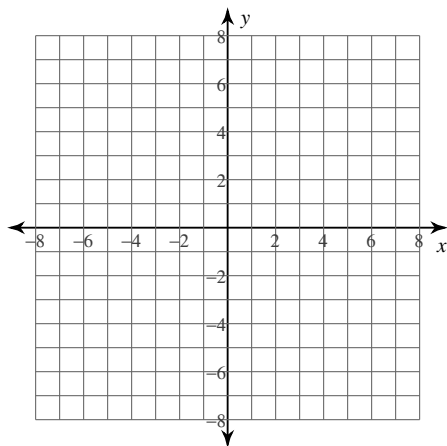
$$22) y = -x^2 + 8x - 16$$



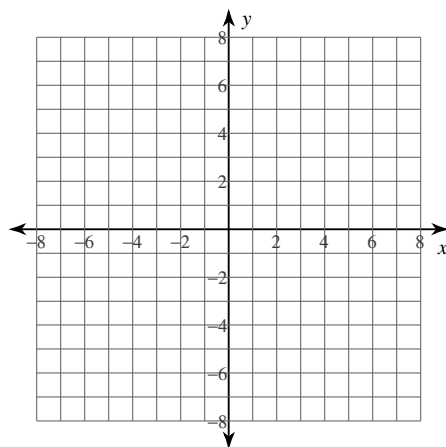
$$23) y = 2(x - 2)(x + 1)$$



$$24) y = -\frac{1}{3}(x + 4)(x + 3)$$



$$25) y = -(x - 1)(x + 1)$$



**8.5 I can determine the domain and range of quadratic functions.**

$$26) y = 2x^2 - 4x$$

$$27) y = x^2 + 2x + 3$$

$$28) y = x^2 + 2x + 2$$

$$29) y = 2x^2 - 8x + 11$$

$$30) y = (x + 1)^2 + 4$$

$$31) y = -2(x - 1)^2 + 4$$

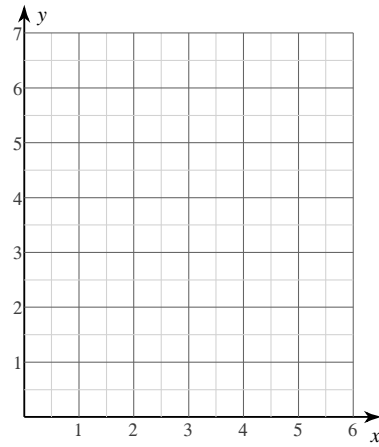
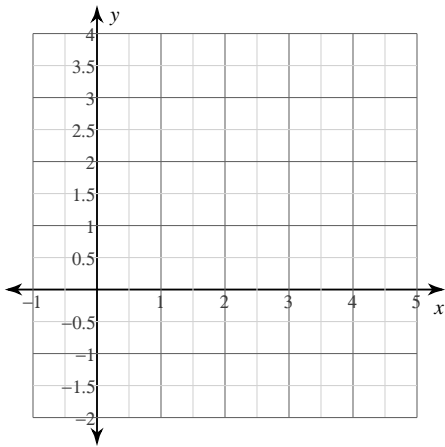
$$32) y = 2(x + 3)^2 + 1$$

$$33) y = 3(x + 1)^2 - 3$$

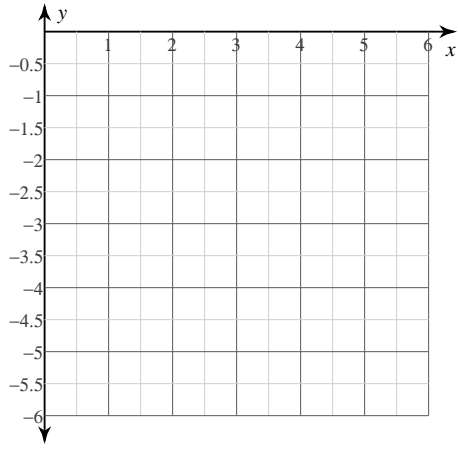
**8.12 I can graph a system of quadratic inequalities with and without technology to find the solution set to the system.**

$$34) y \leq x^2 - 6x + 8$$

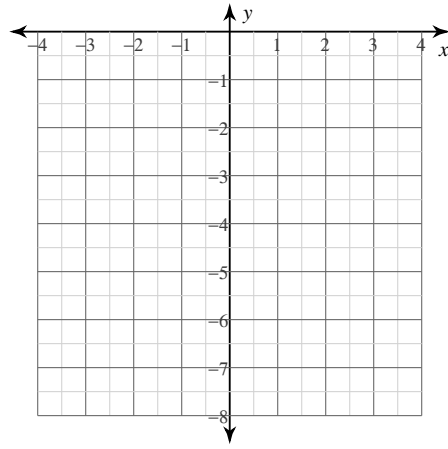
$$35) y < x^2 - 6x + 11$$



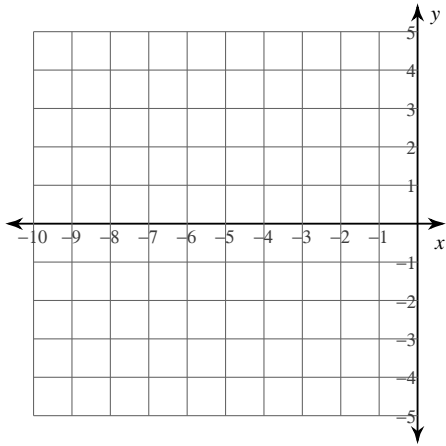
36)  $y \geq -x^2 + 4x - 5$



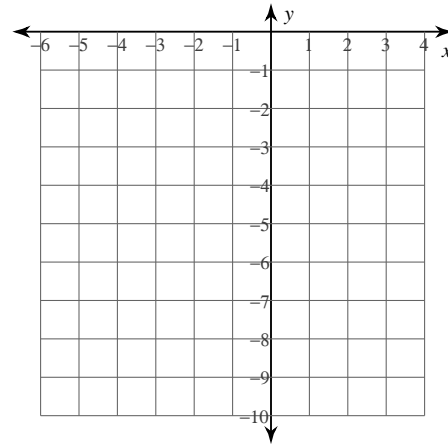
37)  $y \geq -x^2 + 4x - 7$



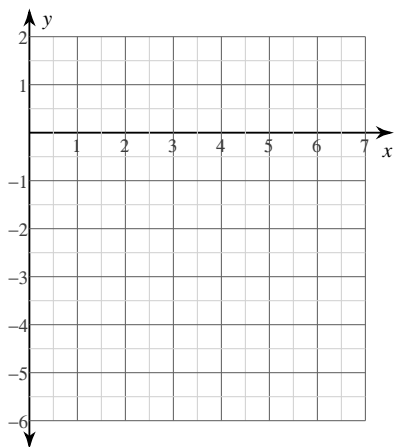
38)  $y > -2(x+2)^2 + 4$



39)  $y < -2(x+1)^2 - 1$



$$40) y \leq -\frac{1}{2}(x-4)^2 - 1$$



$$41) y < -(x+3)^2 + 1$$

