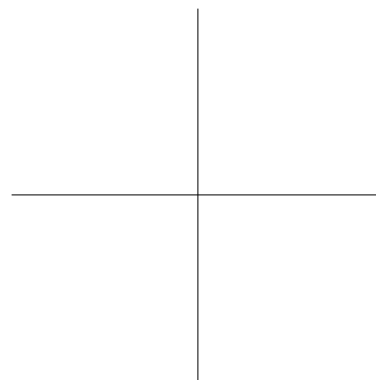
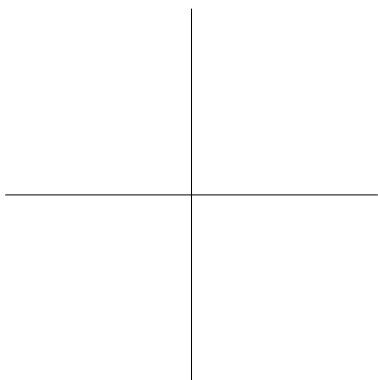


For each of the following quadratic functions: **(a)**. Find the  $(x, y)$  coordinate of the vertex; Is it a maximum or a minimum? **(b)**. Graph the function (w/o calculator). Label the vertex.

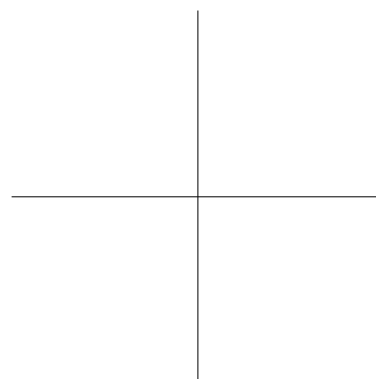
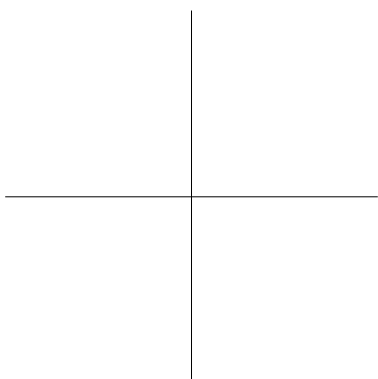
1.  $y = x^2 - 4$

2.  $y = -2x^2 - 18$



3.  $2x^2 + 5x + y = 0$

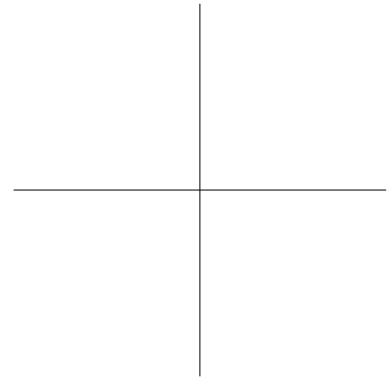
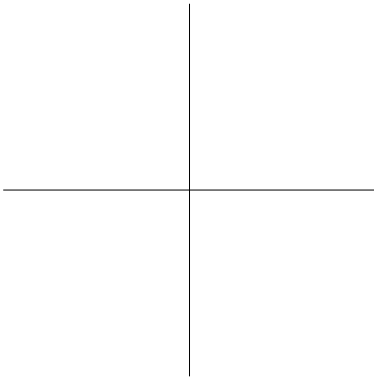
4.  $x^2 - 4y = 12$



For each of the following quadratic functions: **(a)**. Find the  $(x, y)$  coordinate of the vertex; Is it a maximum or a minimum? **(b)**. Find the  $x$ - and  $y$ - intercepts, if they exist. **(c)**. Graph the function (w/o calculator). Label the vertex and intercepts.

5.  $y = x^2 + 4x + 5$

6.  $y = -x^2 - 2x + 3$



1. **(a)**.  $(0, -4)$ ; min

2. **(a)**.  $(0, -18)$ ; max

3. **(a)**.  $\left(-\frac{5}{4}, \frac{25}{8}\right)$ ; max

4. **(a)**.  $(0, -3)$ ; min

5. **(a)**.  $(-2, 1)$ ; min

**(b)**. no  $x$ -int;  $y$ -int = 5

6. **(a)**.  $(-1, 4)$ ; max

**(b)**.  $x$ -int = -3, 1;  $y$ -int = 3

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HW: Section 2.2, p. 143:

#1-5(odd) but with these directions: **(a)**. Find the  $(x, y)$  coordinate of the vertex; Is it a maximum or a minimum? **(b)**. Graph the function (w/o calculator). Label the vertex.

#7-11(odd) but with these directions: **(a)**. Find the  $(x, y)$  coordinate of the vertex; Is it a maximum or a minimum? **(b)**. Find the  $x$ - and  $y$ - intercepts, if they exist. **(c)**. Graph the function (w/o calculator). Label the vertex and intercepts.

#31, 33, 35, 39