

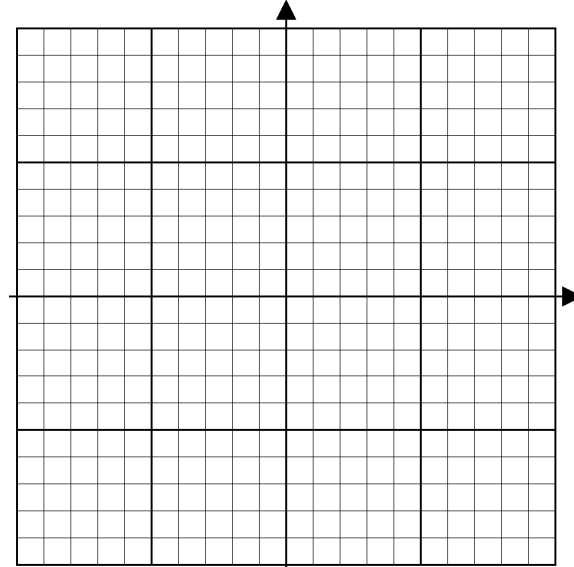
1. Graph the equation by hand. To begin, substitute the values of -3, -2, -1, 0, 1, 2, and 3 for  $x$ . Make other substitutions as necessary. Then use a graphing calculator to verify your work.

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

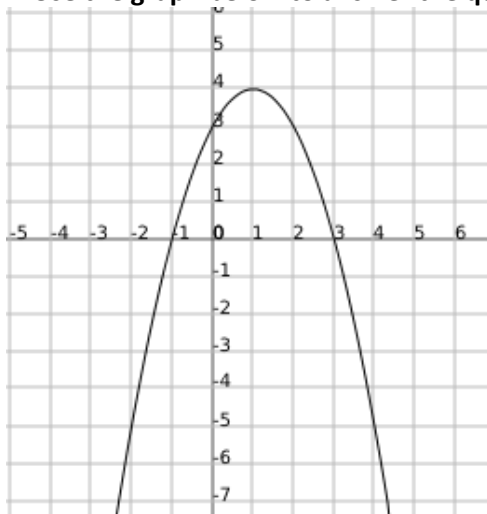
a) Complete the table below

$x$	$y$
-3	
-2	
-1	
0	
1	
2	
3	

b) Graph



2. Use the graph below to answer the questions that follow.



- |                                |                                |
|--------------------------------|--------------------------------|
| a) Find $y$ when $x = 2$ .     | e) Find the $x$ -intercept(s). |
| b) Find $x$ when $y = 3$ .     | f) Find the maximum point.     |
| c) Find $x$ when $y = 4$ .     | g) Find the vertex.            |
| c) Find $x$ when $y = 5$ .     | h) Find the axis of symmetry.  |
| d) Find the $y$ -intercept(s). |                                |

3. In general, can a parabola have more than one  $y$ -intercept?

4. In general, can a parabola have no  $x$ -intercepts?