

Characteristic	$y = -2(x - 3)^2 - 1$	$y = -2(x + 6)^2 - 4$	$y = 4(x - 5)^2 + 3$	$y = -3(x - 7)^2 - 1$	$y = 5(x + 3)^2 - 2$																																																																																																																								
1. Value of "a"	-2	-2	4	-3	5																																																																																																																								
2. Value of "p" or "h"	3	-6	5	7	-3																																																																																																																								
3. Value of "q" or "k"	-1	-4	-3	-1	-2																																																																																																																								
4. Curve wider, normal narrower than $y = x^2$	narrow	narrow	narrow	narrow	narrow																																																																																																																								
5. Direction of opening	down	down	up	down	up																																																																																																																								
6. Coordinates of the vertex	(3, -1)	(-6, -4)	(5, 3)	(7, -1)	(-3, -2)																																																																																																																								
7. Equation of axis of symmetry	$x = -3$	$x = -6$	$x = 5$	$x = 7$	$x = -3$																																																																																																																								
8. Domain of the function	$x \in \mathbb{R}$	$x \in \mathbb{R}$	$x \in \mathbb{R}$	$x \in \mathbb{R}$	$x \in \mathbb{R}$																																																																																																																								
9. Range of the function	$y \leq -1$	$y \leq -4$	$y \geq 3$	$y \leq -1$	$y \geq -2$																																																																																																																								
10. Does the curve have a maximum or minimum value?	max	max	min	max	min																																																																																																																								
11. What is the maximum or minimum value?	$y = -1$	$y = -4$	$y = 3$	$y = -1$	$y = -2$																																																																																																																								
12. Table of Values	<table border="1"> <tr><td>X</td><td>-1</td><td>0</td><td>3</td><td>6</td><td>7</td></tr> <tr><td>Y</td><td>-3</td><td>-1</td><td>-1</td><td>-1</td><td>-3</td></tr> <tr><td></td><td>3</td><td>9</td><td>1</td><td>9</td><td>3</td></tr> </table>	X	-1	0	3	6	7	Y	-3	-1	-1	-1	-3		3	9	1	9	3	<table border="1"> <tr><td>X</td><td>-1</td><td>-1</td><td>-6</td><td>0</td><td>1</td></tr> <tr><td>Y</td><td>-3</td><td>-2</td><td>-4</td><td>-</td><td>-</td></tr> <tr><td></td><td>1</td><td>7</td><td>4</td><td>7</td><td>1</td></tr> <tr><td></td><td>0</td><td>6</td><td>6</td><td>6</td><td>0</td></tr> <tr><td></td><td>2</td><td></td><td></td><td></td><td>2</td></tr> </table>	X	-1	-1	-6	0	1	Y	-3	-2	-4	-	-		1	7	4	7	1		0	6	6	6	0		2				2	<table border="1"> <tr><td>X</td><td>-1</td><td>0</td><td>5</td><td>1</td><td>1</td></tr> <tr><td>Y</td><td>1</td><td>1</td><td>3</td><td>1</td><td>1</td></tr> <tr><td></td><td>4</td><td>0</td><td>3</td><td>0</td><td>4</td></tr> <tr><td></td><td>5</td><td>3</td><td></td><td>3</td><td>5</td></tr> </table>	X	-1	0	5	1	1	Y	1	1	3	1	1		4	0	3	0	4		5	3		3	5	<table border="1"> <tr><td>X</td><td>-1</td><td>0</td><td>7</td><td>1</td><td>1</td></tr> <tr><td>Y</td><td>-1</td><td>-</td><td>-</td><td>-</td><td>-</td></tr> <tr><td></td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td></td><td>9</td><td>4</td><td></td><td>4</td><td>9</td></tr> <tr><td></td><td>3</td><td>8</td><td></td><td>8</td><td>3</td></tr> </table>	X	-1	0	7	1	1	Y	-1	-	-	-	-		1	1	1	1	1		9	4		4	9		3	8		8	3	<table border="1"> <tr><td>X</td><td>-7</td><td>-6</td><td>-3</td><td>0</td><td>1</td></tr> <tr><td>Y</td><td>7</td><td>4</td><td>-</td><td>4</td><td>7</td></tr> <tr><td></td><td>8</td><td>3</td><td>2</td><td>3</td><td>8</td></tr> </table>	X	-7	-6	-3	0	1	Y	7	4	-	4	7		8	3	2	3	8
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13. Sketch the graph																																																																																																																													

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