

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

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