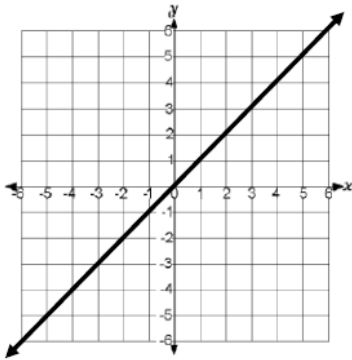
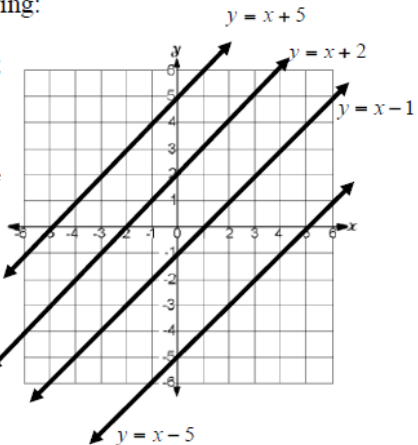
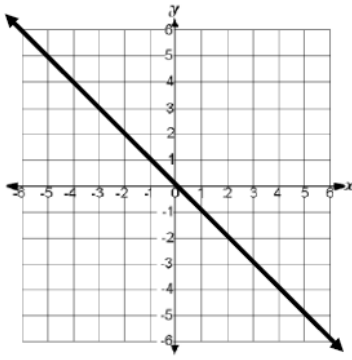
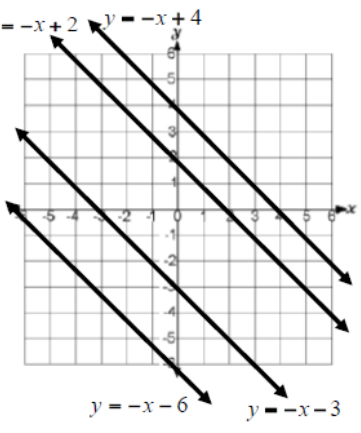
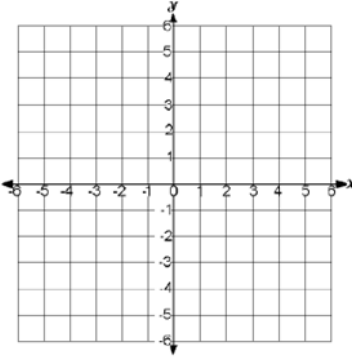
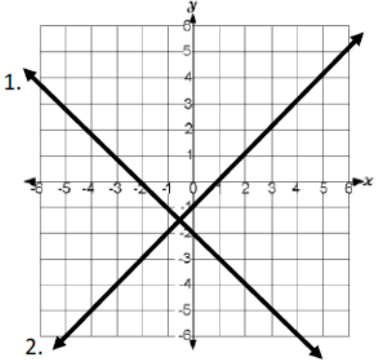


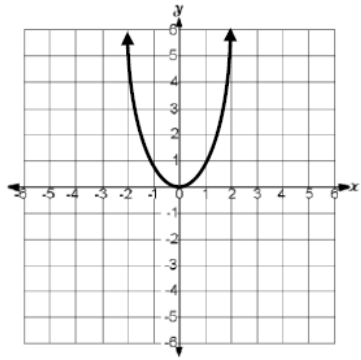
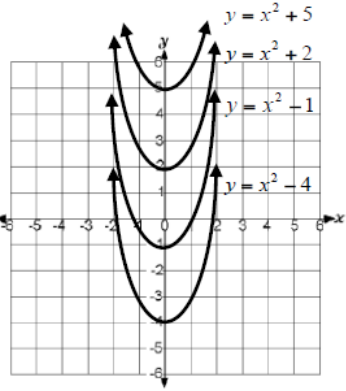
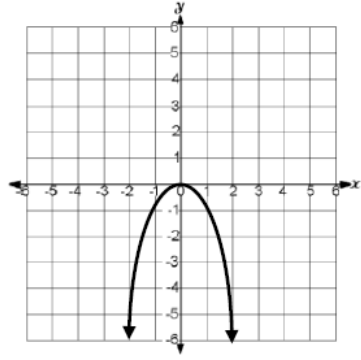
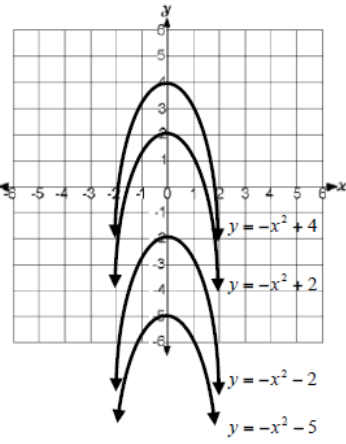
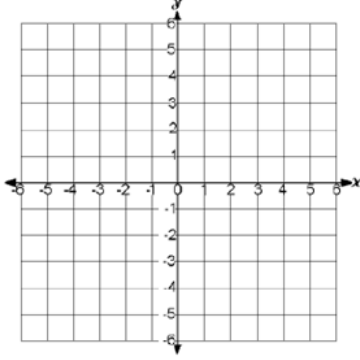
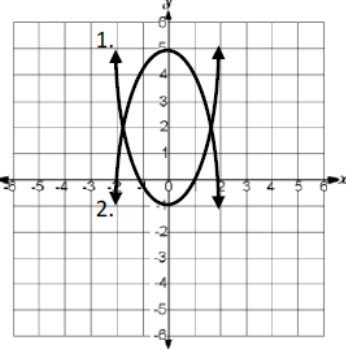
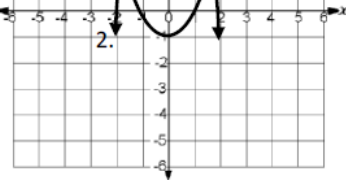
Families of Functions ... Set 4

Graphing Family of Functions

<p style="text-align: center;">Linear Function</p> <p>Function</p> $y = x$ <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>x</th> <th>y</th> </tr> </thead> <tbody> <tr> <td>-2</td> <td>-2</td> </tr> <tr> <td>-1</td> <td>-1</td> </tr> <tr> <td>0</td> <td>0</td> </tr> <tr> <td>1</td> <td>1</td> </tr> <tr> <td>2</td> <td>2</td> </tr> </tbody> </table> 	x	y	-2	-2	-1	-1	0	0	1	1	2	2	<p>Graph the following:</p> <ol style="list-style-type: none"> $y = x + 2$ $y = x - 5$ <p>Given the graph, write the equation of the line.</p>  <ol style="list-style-type: none"> $y = x + 5$ $y = x - 1$
x	y												
-2	-2												
-1	-1												
0	0												
1	1												
2	2												
<p style="text-align: center;">Linear Function</p> <p>Function</p> $y = -x$ <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>x</th> <th>y</th> </tr> </thead> <tbody> <tr> <td>-2</td> <td>2</td> </tr> <tr> <td>-1</td> <td>1</td> </tr> <tr> <td>0</td> <td>0</td> </tr> <tr> <td>1</td> <td>-1</td> </tr> <tr> <td>2</td> <td>-2</td> </tr> </tbody> </table> 	x	y	-2	2	-1	1	0	0	1	-1	2	-2	<p>Graph the following:</p> <ol style="list-style-type: none"> $y = -x + 4$ $y = -x - 3$ <p>Given the graph, write the equation of the line.</p>  <ol style="list-style-type: none"> $y = -x + 2$ $y = -x - 6$
x	y												
-2	2												
-1	1												
0	0												
1	-1												
2	-2												
<p>You Try:</p> <p>Graph:</p> <ol style="list-style-type: none"> $y = x + 4$ $y = -x - 1$ 	<p>You Try:</p> <p>Given the graphs, write the equation of the line:</p>  <ol style="list-style-type: none"> 												

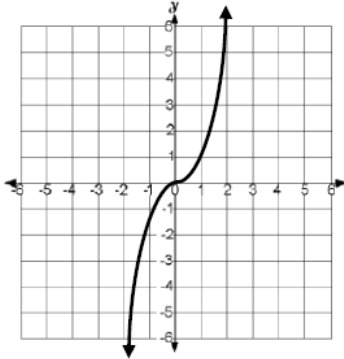
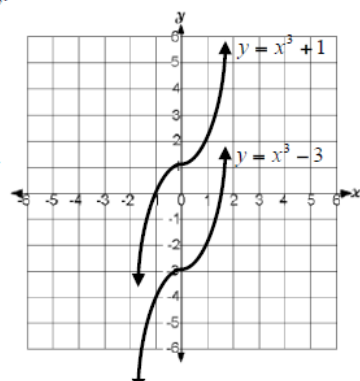
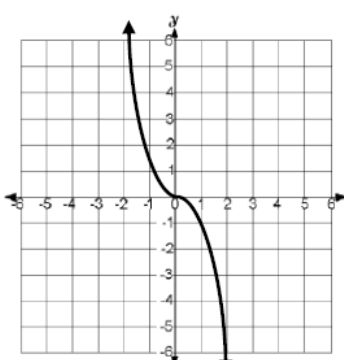
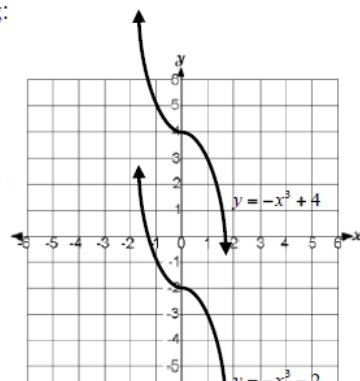
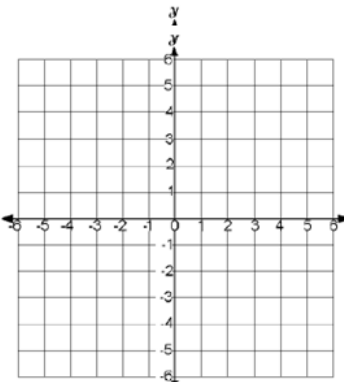
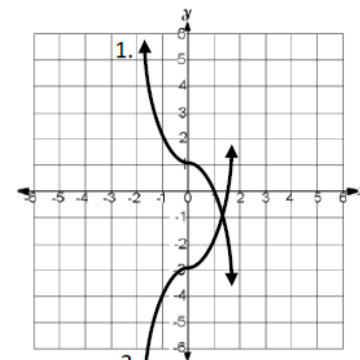
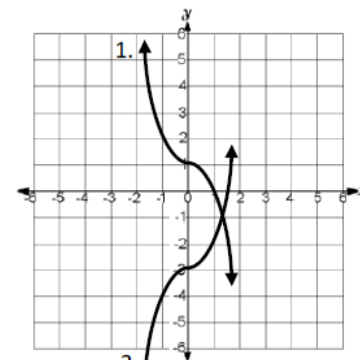
Families of Functions ... Set 4

Graphing Family of Functions

<p style="text-align: center;">Quadratic Function</p> <p>"Mother Function"</p> $y = x^2$ <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>x</th> <th>y</th> </tr> </thead> <tbody> <tr><td>-2</td><td>4</td></tr> <tr><td>-1</td><td>1</td></tr> <tr><td>0</td><td>0</td></tr> <tr><td>1</td><td>1</td></tr> <tr><td>2</td><td>4</td></tr> </tbody> </table> 	x	y	-2	4	-1	1	0	0	1	1	2	4	<p>Graph the following:</p> <ol style="list-style-type: none"> $y = x^2 + 2$ $y = x^2 - 4$ <p>Given the graph, write the equation of the parabola.</p>  <ol style="list-style-type: none"> $y = x^2 + 5$ $y = x^2 - 1$
x	y												
-2	4												
-1	1												
0	0												
1	1												
2	4												
<p style="text-align: center;">Quadratic Function</p> <p>"Father Function"</p> $y = -x^2$ <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>x</th> <th>y</th> </tr> </thead> <tbody> <tr><td>-2</td><td>-4</td></tr> <tr><td>-1</td><td>-1</td></tr> <tr><td>0</td><td>0</td></tr> <tr><td>1</td><td>-1</td></tr> <tr><td>2</td><td>-4</td></tr> </tbody> </table> 	x	y	-2	-4	-1	-1	0	0	1	-1	2	-4	<p>Graph the following</p> <ol style="list-style-type: none"> $y = -x^2 + 4$ $y = -x^2 - 2$ <p>Given the graph, write the equation of the parabola.</p>  <ol style="list-style-type: none"> $y = -x^2 + 2$ $y = -x^2 - 5$
x	y												
-2	-4												
-1	-1												
0	0												
1	-1												
2	-4												
<p>You Try:</p> <p>Graph:</p> <ol style="list-style-type: none"> $y = -x^2 + 1$ $y = x^2 + 3$ 	<p>You Try:</p> <p>Given the graphs, write the equation of the line:</p> <ol style="list-style-type: none">   												

Families of Functions ... Set 4

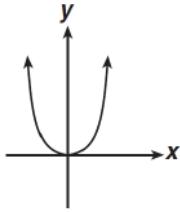
Graphing Family of Functions

<p style="text-align: center;">Cubic Function</p> <p>"Mother Function"</p> $y = x^3$ <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>x</th> <th>y</th> </tr> </thead> <tbody> <tr> <td>-2</td> <td>-8</td> </tr> <tr> <td>-1</td> <td>-1</td> </tr> <tr> <td>0</td> <td>0</td> </tr> <tr> <td>1</td> <td>1</td> </tr> <tr> <td>2</td> <td>8</td> </tr> </tbody> </table> 	x	y	-2	-8	-1	-1	0	0	1	1	2	8	<p>Graph the following:</p> <ol style="list-style-type: none"> $y = x^3 + 1$ <p>Given the graph, write the equation of the cubic.</p> <ol style="list-style-type: none"> $y = x^3 - 3$ 
x	y												
-2	-8												
-1	-1												
0	0												
1	1												
2	8												
<p style="text-align: center;">Cubic Function</p> <p>"Father Function"</p> $y = -x^3$ <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>x</th> <th>y</th> </tr> </thead> <tbody> <tr> <td>-2</td> <td>8</td> </tr> <tr> <td>-1</td> <td>1</td> </tr> <tr> <td>0</td> <td>0</td> </tr> <tr> <td>1</td> <td>-1</td> </tr> <tr> <td>2</td> <td>-8</td> </tr> </tbody> </table> 	x	y	-2	8	-1	1	0	0	1	-1	2	-8	<p>Graph the following:</p> <ol style="list-style-type: none"> $y = -x^3 + 4$ <p>Given the graph, write the equation of the cubic.</p> <ol style="list-style-type: none"> $y = -x^3 - 2$ 
x	y												
-2	8												
-1	1												
0	0												
1	-1												
2	-8												
<p>You Try:</p> <p>Graph:</p> <ol style="list-style-type: none"> $y = x^3 - 2$ $y = -x^3 - 1$ 	<p>You Try:</p> <p>Given the graphs, write the equation of the line:</p> <ol style="list-style-type: none">   												

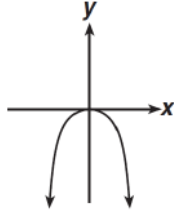
Families of Functions ... Set 4

1.

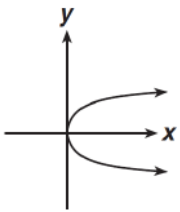
Which graph shows $y = -x^2$?



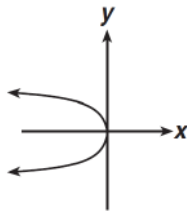
A



C



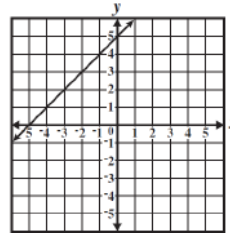
B



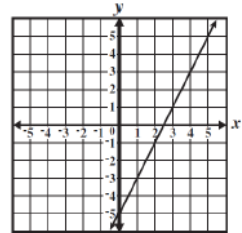
D

2.

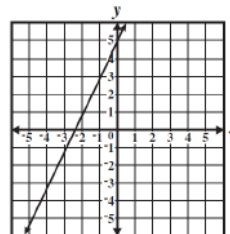
Which *best* represents the graph of $y = 2x - 5$?



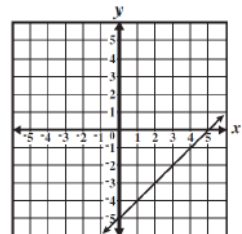
A



C



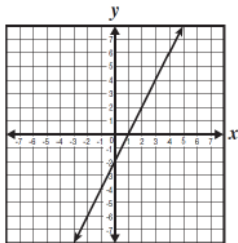
B



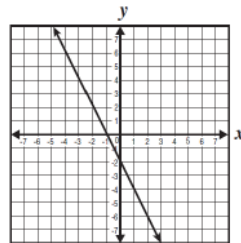
D

3.

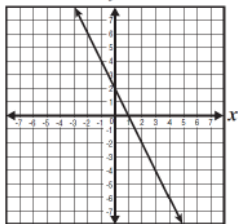
Which *best* represents the graph of $y = 2x - 2$?



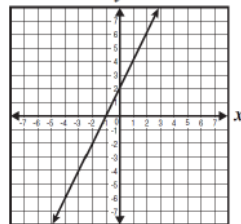
A



C

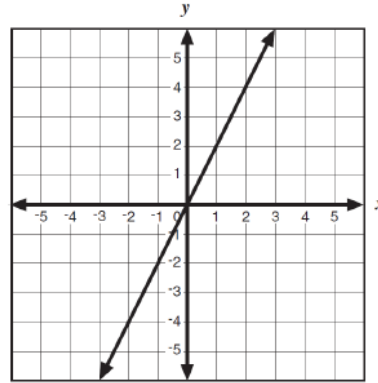


B



D

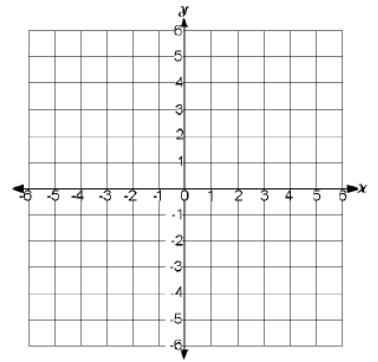
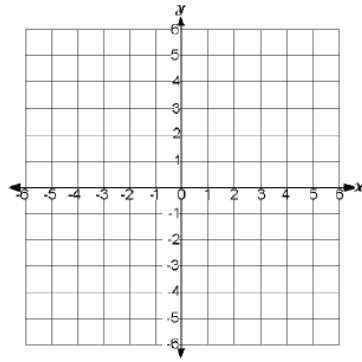
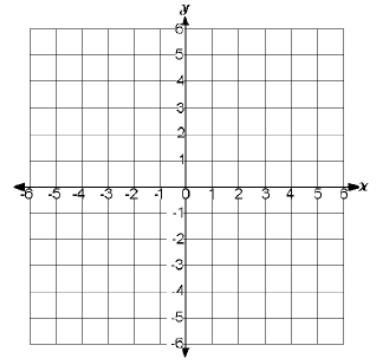
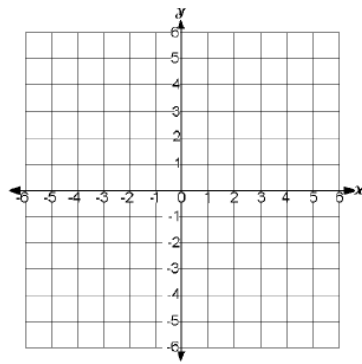
4.



Which equation *best* represents the graph above?

- A $y = x$
- B $y = 2x$
- C $y = x + 2$
- D $y = 2x + 2$

Families of Functions ... Set 4



Families of Functions ... Set 4

