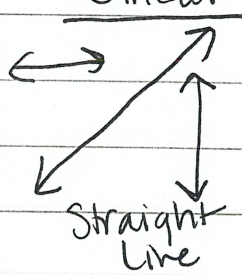
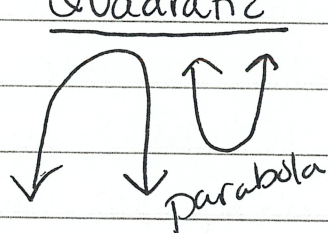
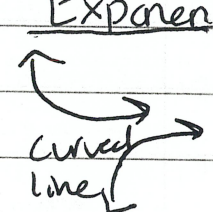


Comparing Functions

Identifying Functions from an equation:

<u>Linear</u>	<u>Quadratic</u>	<u>Exponential</u>
"No exponents"	"exponent of 2"	"Exponent of x"
$y = 5x + 1$ $2x + 3y = 6$	$y = 2x^2 + 3x - 5$ $y = (x - 2)^2 + 5$	$y = 3^x + 1$ $y = 5^{2x}$

Identifying Functions from a graph:

<u>Linear</u>	<u>Quadratic</u>	<u>Exponential</u>
		

Identifying Functions from a table:

<u>Linear</u>	<u>Quadratic</u>	<u>Exponential</u>																																				
<table border="1"> <thead> <tr> <th>x</th> <th>y</th> </tr> </thead> <tbody> <tr><td>1</td><td>5</td></tr> <tr><td>2</td><td>9</td></tr> <tr><td>3</td><td>13</td></tr> <tr><td>4</td><td>17</td></tr> <tr><td>5</td><td>21</td></tr> </tbody> </table> 1st Diff +4 +4 +4 +4 • common 1st difference • No repeating x-values	x	y	1	5	2	9	3	13	4	17	5	21	<table border="1"> <thead> <tr> <th>x</th> <th>y</th> </tr> </thead> <tbody> <tr><td>1</td><td>0</td></tr> <tr><td>2</td><td>-1</td></tr> <tr><td>3</td><td>0</td></tr> <tr><td>4</td><td>3</td></tr> <tr><td>5</td><td>8</td></tr> </tbody> </table> 2nd diff +2 +2 +2 +2 • common 2nd diff • +/- values repeat	x	y	1	0	2	-1	3	0	4	3	5	8	<table border="1"> <thead> <tr> <th>x</th> <th>y</th> </tr> </thead> <tbody> <tr><td>1</td><td>3</td></tr> <tr><td>2</td><td>9</td></tr> <tr><td>3</td><td>27</td></tr> <tr><td>4</td><td>81</td></tr> <tr><td>5</td><td>243</td></tr> </tbody> </table> common ratio $\times 3$ $\times 3$ $\times 3$ $\times 3$ • y changes quickly • multiplication pattern • No repeating y-values	x	y	1	3	2	9	3	27	4	81	5	243
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