

4.4 Linear, Exponential or Neither?

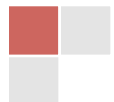
A Solidify Understanding Task

For each representation of a function, decide if the function is linear, exponential, or neither. **Give at least 2 reasons for your answer.**



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<p>1.</p>	<p>2.</p> <p style="text-align: center;">Tennis Tournament</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Rounds</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> </tr> </thead> <tbody> <tr> <td>Number of Players left</td> <td>64</td> <td>32</td> <td>16</td> <td>8</td> <td>4</td> </tr> </tbody> </table> <p style="text-align: center;">There are 4 players remaining after 5 rounds.</p>	Rounds	1	2	3	4	5	Number of Players left	64	32	16	8	4
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<p>3.</p> <p style="text-align: center;">$y = 4x$</p>	<p>4.</p> <p>This function is decreasing at a constant rate</p>												
<p>5.</p>	<p>6.</p> <p>A person's height as a function of a person's age (from age 0 to 100)</p>												



7.

$$-3x = 4y + 7$$

8.

x	y
-2	23
0	5
2	-13
4	-31
6	-49

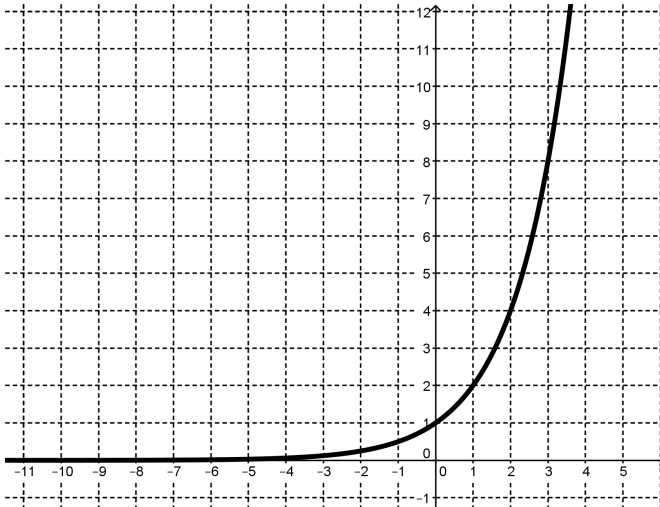
9.

Height in Inches	Shoe Size
62	6
74	13
70	9
67	11
53	4
58	7

10.

The number of cell phone users in Centerville as a function of years, if the number of users is increasing by 75% each year.

11.



12.

The time it takes you to get to work as a function the speed at which you drive



<p>13.</p> $y = 7x^2$	<p>14.</p> <p>Each point on the graph is exactly $\frac{1}{3}$ of the previous point.</p>
<p>15.</p> $f(1) = 7, f(2) = 7, f(n) = f(n - 1) + f(n - 2)$	<p>16.</p> $f(0) = 1, f(n + 1) = \frac{2}{3}f(n)$

