

Name:

Period:

Linear and Exponential
Functions

4H


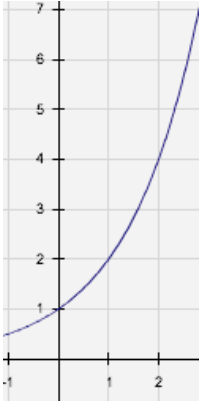
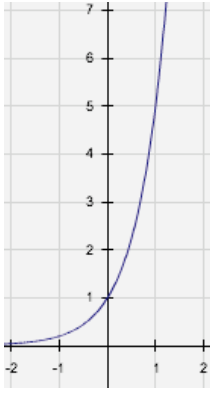
Ready, Set, Go!

Ready

Topic: Comparing rates of change in both linear and exponential situations.
Identify whether situation "a" or situation "b" has the greater rate of change.



©2012 www.flickr.com/photos/scenesfrommemory

1.	<p>a.</p> <table border="1"> <thead> <tr> <th>x</th> <th>y</th> </tr> </thead> <tbody> <tr> <td>-10</td> <td>-48</td> </tr> <tr> <td>-9</td> <td>-43</td> </tr> <tr> <td>-8</td> <td>-38</td> </tr> <tr> <td>-7</td> <td>-33</td> </tr> </tbody> </table>	x	y	-10	-48	-9	-43	-8	-38	-7	-33	<p>b.</p> 
x	y											
-10	-48											
-9	-43											
-8	-38											
-7	-33											
2.	<p>a.</p> 	<p>b.</p> 										






Name:

Period:

Linear and Exponential
Functions

4H

3.	a. Lee has \$25 withheld each week from his salary to pay for his subway pass.	b. Jose owes his brother \$50. He has promised to pay half of what he owes each week until the debt is paid.										
4.	a. <table border="1" data-bbox="354 573 677 709"> <tr> <td>x</td> <td>6</td> <td>10</td> <td>14</td> <td>18</td> </tr> <tr> <td>y</td> <td>13</td> <td>15</td> <td>17</td> <td>19</td> </tr> </table>	x	6	10	14	18	y	13	15	17	19	b. The number of rhombi in each shape. <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Figure 1</p> </div> <div style="text-align: center;">  <p>Figure 2</p> </div> <div style="text-align: center;">  <p>Figure 3</p> </div> </div>
x	6	10	14	18								
y	13	15	17	19								
5.	a. $y = 2(5)^x$	b. In the children's book, <i>The Magic Pot</i> , every time you put one object into the pot, two of the same object come out. Imagine that you have 5 magic pots.										

Set

Topic: Recognizing linear and exponential functions.

For each representation of a function, decide if the function is linear, exponential, or neither.

6. The population of a town is decreasing at a rate of 1.5% per year.	7. <table border="1" data-bbox="824 1308 1372 1644"> <thead> <tr> <th>Side of a square</th> <th>Area of a square</th> </tr> </thead> <tbody> <tr> <td>1 inch</td> <td>1 in²</td> </tr> <tr> <td>2 inches</td> <td>4 in²</td> </tr> <tr> <td>3 inches</td> <td>9 in²</td> </tr> <tr> <td>4 inches</td> <td>16 in²</td> </tr> </tbody> </table>	Side of a square	Area of a square	1 inch	1 in ²	2 inches	4 in ²	3 inches	9 in ²	4 inches	16 in ²
Side of a square	Area of a square										
1 inch	1 in ²										
2 inches	4 in ²										
3 inches	9 in ²										
4 inches	16 in ²										
8. $3x + 4y = -3$	9. Joan earns a salary of \$30,000 per year plus a 4.25% commission on sales.										



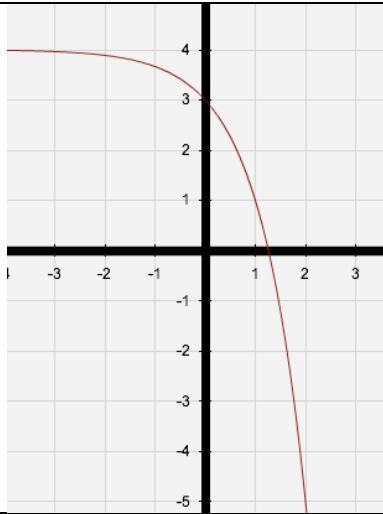
Name:

Period:

Linear and Exponential
Functions

4H

10.



11.

“On the 4th day of Christmas my true love gave to me, 4 calling birds, 3 French hens, 2 turtledoves, and a partridge in a pear tree.”

The number of gifts received each day of “The 12 Days of Christmas” as a function of the day.

Go

Each of the tables below represents a geometric sequence. Find the missing terms in the sequence.

12.

x	1	2	3	4	5
y	2				162

13.

x	1	2	3	4	5
y	1/9			-3	

14.

x	1	2	3	4	5
y	10				0.625

© 2012 Mathematics Vision Project| MVP

In partnership with the Utah State Office of Education

Licensed under the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported license.



Name:

Period:

Linear and Exponential
Functions

4H

15.

x	1	2	3	4	5
y	g				gz^4

16.

x	1	2	3	4	5
y	-3				-243

Need Help? Check out these related videos and internet sites:

sequences: <http://www.youtube.com/watch?v=THV2Wsf8hro>

