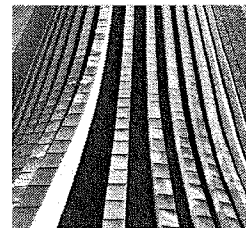


Name:

Linear and Exponential Functions | 4.4

Ready, Set, Go!



Ready

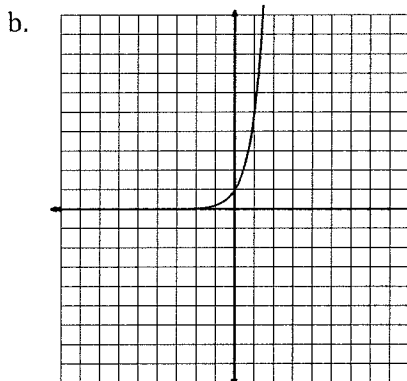
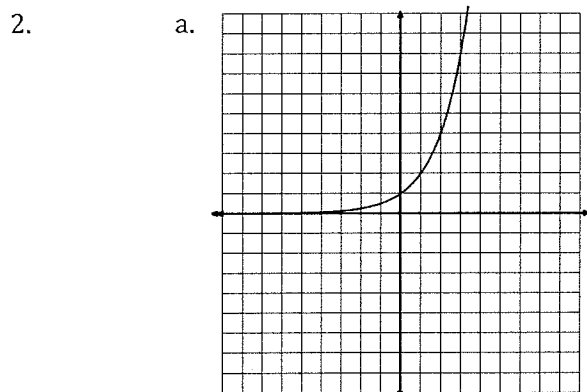
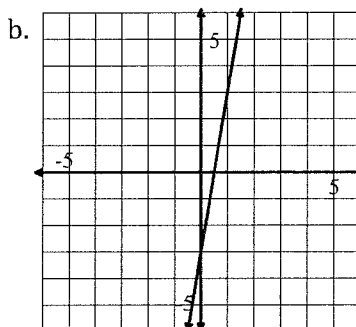
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Topic: Comparing rates of change in both linear and exponential situations.

Identify whether situation "a" or situation "b" has the greater rate of change.

1. a.

x	y
-10	-48
-9	-43
-8	-38
-7	-33



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.

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4. a.

x	6	10	14	18
y	13	15	17	19

b. The number of rhombi in each shape.

Figure 1

Figure 2

Figure 3

5. a. $y = 2(5)^x$ b. In the children's book, *The Magic Pot*, 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.

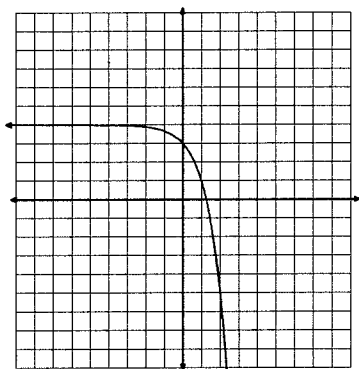
For each representation of a function, decide if the function is linear, exponential, or neither.

6. The population of a town is decreasing at a rate of 1.5% per year.

7. Joan earns a salary of \$30,000 per year plus a 4.25% commission on sales.

8. $3x + 4y = -3$ 9. The number of gifts received each day of "The 12 Days of Christmas" as a function of the day. ("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.")

10.



11.

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

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Go

Topic: Geometric means

For each geometric sequence below, 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	$\frac{1}{9}$			-3	

14.

x	1	2	3	4	5
y	10				0.625

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>

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