

For the tables below, identify which of the following relationships:

- (a) Change by equal differences over equal intervals (linear)  
OR  
(b) Change by equal factors (ratios) over equal intervals (exponential)  
OR  
(c) Neither

1.

$x$	$f(x)$
-30	-57
-25	-47
-20	-37
-15	-27
-10	-17
-5	-7

2.

$x$	$f(x)$
3	-5
4	-10
2	-20
6	15
7	35
5	50

3.

$x$	$f(x)$
3	-5
5	-10
7	-20
9	-40
11	-80

4.

$x$	$f(x)$
0	-6
1	-12
2	-24
4	-48
6	-96

5.

$x$	$f(x)$
0	3
1	6
3	24
7	384
9	1536

6.

$x$	$f(x)$
-1	4
1	8
4	2
5	6
9	30

7.

$x$	$f(x)$
0	-5
4	-2
-4	-8
8	1
-8	-11

8.

$x$	$f(x)$
-10	7
-5	8
-0	9
5	4
10	3

9.

$x$	$f(x)$
0	-5
4	-2
8	1
10	4
12	7

10.

$x$	$f(x)$
-5	6
-4	3
-3	1
-2	17
-1	119

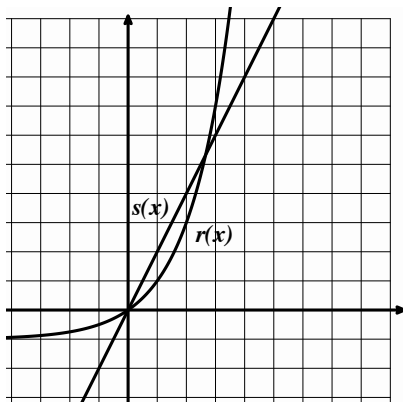
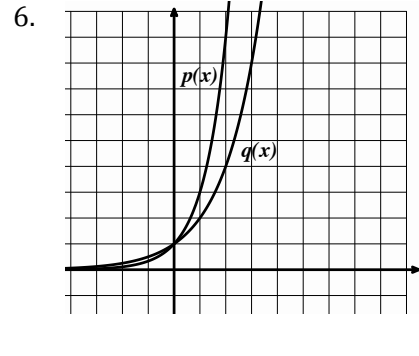
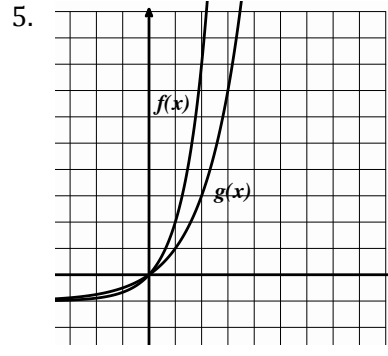
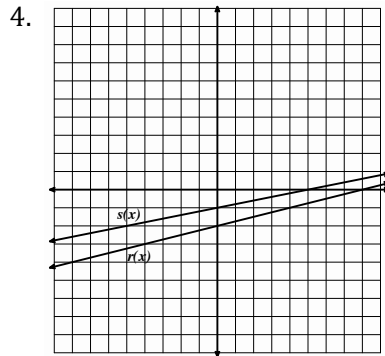
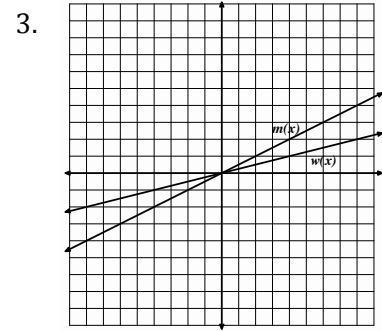
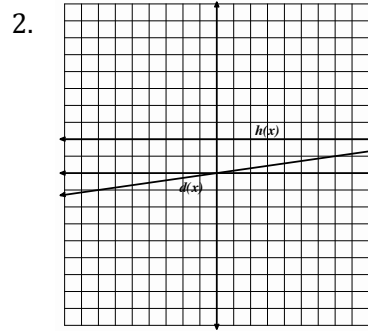
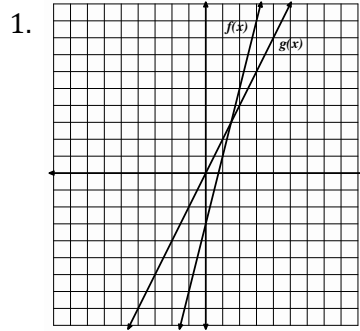


## Ready

Topic: Recognizing the greater rate of change when comparing 2 linear functions or 2 exponential functions.

### Decide which function is growing faster

©



- 7a. Examine the graph at the left from 0 to 1.  
Which graph do you think is growing faster?
- b. Now look at the graph from 2 to 3.  
Which graph is growing faster in this interval?





**Go**

Topic: Recursive and explicit equations of geometric sequences.

**Write the recursive and explicit equations for each geometric sequence.**

10. Marissa has saved \$1000 in a jar. She plans to withdraw half of what's remaining in the jar at the end of each month.

11.

Time (Days)	Number of Bacteria
1	10
2	100
3	1000
4	10000

12.

Folds in paper	Number of rectangles
0	1
1	2
2	4
3	8

13. 1024, 256, 64, 16, ...

14. 3, 9, 27, 81, ...

Need Help? Check out these related videos:

<http://www.khanacademy.org/math/algebra/ck12-algebra-1/v/identifying-exponential-models>

<http://www.khanacademy.org/math/algebra/ck12-algebra-1/v/linear--quadratic--and-exponential-models>

