Ready, Set, Go!

Ready

Topic: Comparing arithmetic and geometric sequences

The first and 5th terms of a sequence are given. Fill in the missing numbers for an arithmetic sequence. Then fill in the numbers for a geometric sequence.

1.

Arithmetic	4				324
Geometric	4				324

2.

Arithmetic	3				48
Geometric	3				48

3.

Arithmetic	-6250				-10
Geometric	-6250				-10

4.

Arithmetic	-12				-0.75
Geometric	-12				-0.75

5.

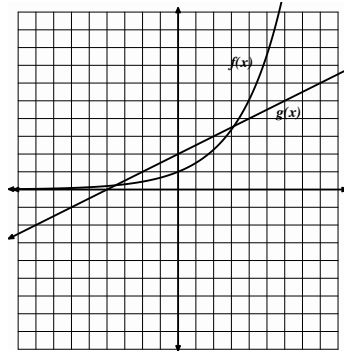| Arithmetic	-1377				-17
Geometric	-1377				-17

Set

Topic: comparing the rates of change of linear and exponential functions.

Compare the rates of change of each pair of functions by identifying the interval where it appears that *f(x)* is changing faster and the interval where it appears that *g(x)* is changing faster. Verify your conclusions by making a table of values for each equation and exploring the rates of change in your tables.
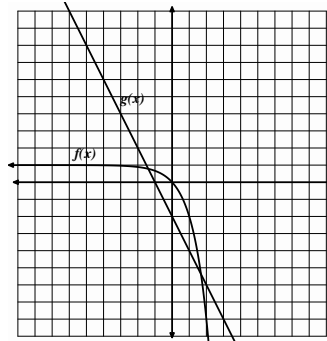
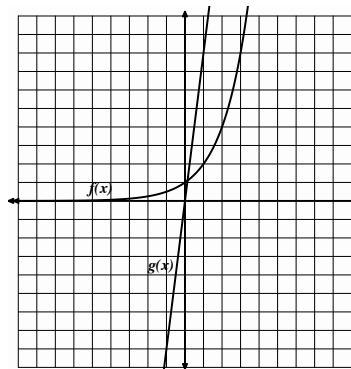6. $f(x) = (1.5)^x$

   $g(x) = \frac{1}{2}x + 2$

x	$f(x)$	$g(x)$

7. $f(x) = -3^x + 1$

   $g(x) = -2x - 2$

x	$f(x)$	$g(x)$

8. $f(x) = 2^x$

   $g(x) = 8x$

x	$f(x)$	$g(x)$

Go

Topic: Writing explicit equations for linear and exponential models.

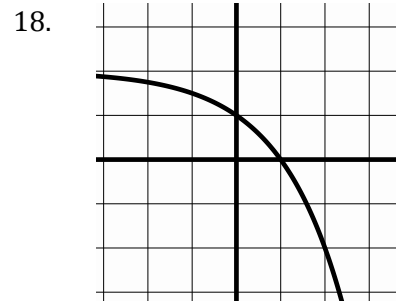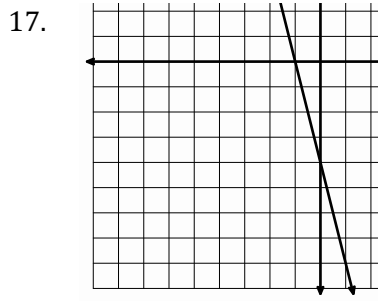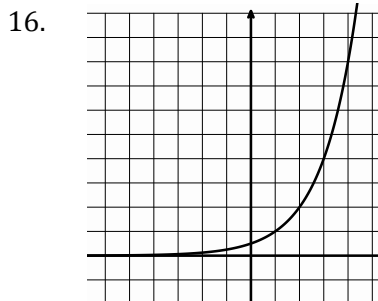**Write the explicit equation for the tables and graphs below.**

9.

x	f(x)
2	-4
3	-11
4	-18
5	-25

10.

x	f(x)
-1	2/5
0	2
1	10
2	50

11.

x	f(x)
2	-24
3	-48
4	-96
5	-192

12.

x	f(x)
-4	81
-3	27
-2	9
-1	3

13.

14.

15.

16.

17.

18.
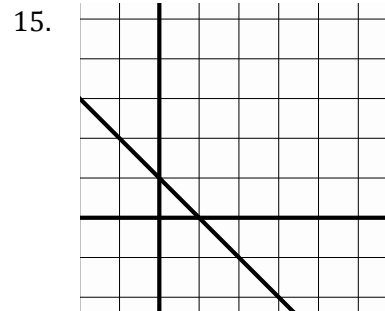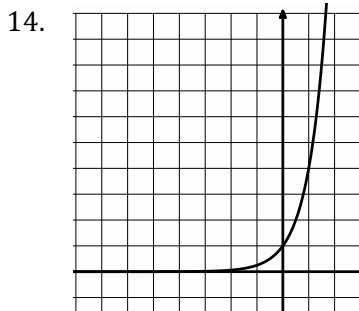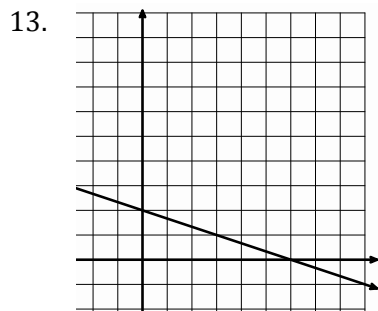
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http://www.khanacademy.org/math/algebra/ck12-algebra-1/v/exponential-growth-functions

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