Fill out the table of values for the given equations. **Write values using fractions only; no decimals.**

1. $y = 17x - 28$

x	y
-3	
1	
4	
5	

2. $y = -8x - 3$

x	y
-10	
-6	
2	
9	

3. $y = \frac{1}{2}x + 15$

x	y
-26	
-14	
-1	
9	

4. $y = 6^x$

x	y
-3	
-1	
1	
2	
5	

5. $y = 10^x$

x	y
-3	
-1	
0	
2	
6	

6. $y = \left(\frac{1}{5}\right)^x$

x	y
-4	
-2	
0	
3	
5	

7. Maya's grandfather opened a savings account for her when she was born. He opened the account with $100 and did not add or take out any money after that. The money in the account grows at a rate of 4% per year.

a. Make a table to show the amount in the account from the time Maya was born until she turned 10.

age	0	1	2	3	4	5	6	7	8	9	10
money											

b. What is the growth factor (what you multiply by) for the account?

c. Write an explicit equation for the value of the account after any number of years.

8. Suppose a movie ticket costs about $7, and inflation causes ticket prices to increase by 4.5% a year for the next several years.

a. At this rate, how much will a ticket cost 5 years from now?

b. How much will a ticket cost 10 years from now?

c. How much will a ticket cost 30 years from now?

9. What is the growth rate (percent growth) for a relationship with the equation $y = 30(2)^x$.

Find the growth rate associated with the given growth factor.

10. 1.4   **11.** 1.9   **12.** 1.75
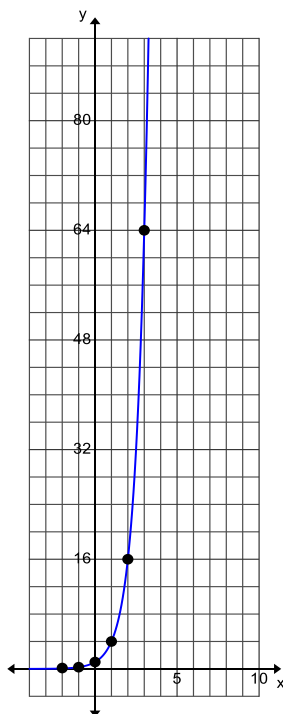
Find the growth factor associated with the given growth rate.

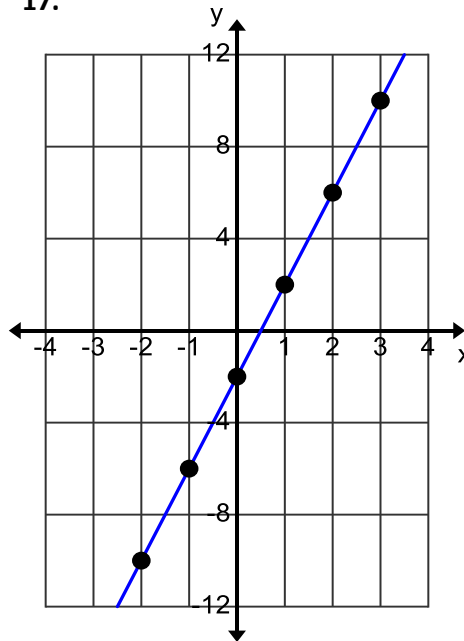**13.** 45%   **14.** 90%   **15.** 31%

Fill in the tables then write an equation for each graph:

16.   **17.**

x	y

x	y

Sometimes what we call failure is really just that necessary struggle called learning.