

For questions 1 – 4, complete each table and identify the growth factor.

1.)

x	y	Growth Factor
1	3	
2	4.5	
3	6.75	
4	10.125	
5		
6		

2.)

Hour	# of bacteria	Growth Factor
0	1	
1	2	
2	4	
3		
4		
5		

3.)

Years	Frogs	Growth Factor
1	100	
2	330	
3	1089	
4		
5		

4.)

x	y	Growth Factor
1	12	
2	30	
3	75	
4		
5		

Evaluate the following:

5.) -5^3

6.) $(-1)^{46}$

7.) -2^8

8.) x^4 when $x = -3$

9.) 4^9

10.) -1^{46}

11.) $(-3)^5$

12.) -7^2

Change the following from standard form to exponential form.

13.) $3 \cdot 3 \cdot 3 \cdot 3$

14.) $k \cdot k \cdot k \cdot k \cdot k$

15.) $(-9)(-9)(-9)m \cdot m \cdot m$

16.) $g \cdot g \cdot g \cdot g \cdot h$

17.) $a \cdot a \cdot b \cdot b \cdot b$

18.) $15 \cdot 15 \cdot 15 \dots \cdot 15$
(for 25 factors)

Evaluate the following.

19.) 2^x when x is 5

20.) 0.07^x when x is 3

21.) $(-5)^n$ when n is 4

22.) 2^{x+4} when x is 2

23.) 4^{m-1} when m is 4

24.) $-x^6$ when x is 2