

FECHTER

NAME: \_\_\_\_\_

Evaluate the given expression.

1)  $6^0 + 3 \cdot 4^2 =$  49

2)  $(-2 \cdot 6)^0 =$  1

3)  $-(x + m + j)^0 =$  -1

4)  $4^5 - 5^4 =$  399

5)  $6^3 + (7^0 - 3)^2 =$  220

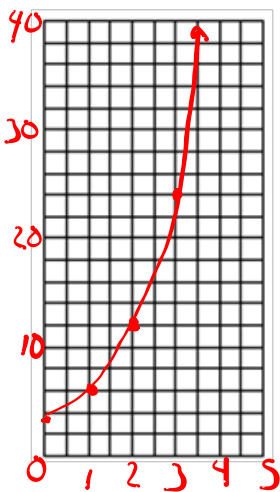
- 6) The number of people that use the internet each year has gone up exponentially. In 1985 there was about 5000 internet sites that colleges used. If the number of internet sites doubled every year, how many would there be now (2012)?

$\approx 671,088,640,000$  or  $6.71 \times 10^{11}$

- 7) Krissy is doing a science project with a petri dish of bacteria. The bacteria grows at a rate of 60% every 6 hours. If she started with 1000 bacteria, how many will she have in 3 days?

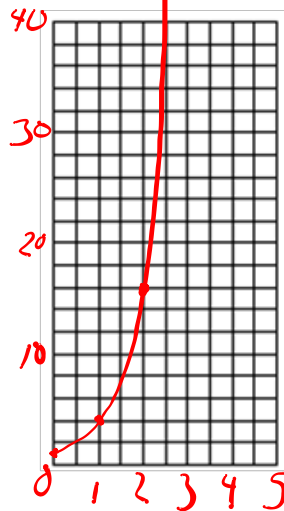
$1000(1.6)^{12} = 281,475$

- 8) Graph  $y = 3 \cdot 2^x$



x	y
0	3
1	6
2	12
3	24

- 9) Graph  $y = 4^x$



x	y
0	1
1	4
2	16
3	64