

JANUARY 26, 2012

ALGEBRA 2

ANYTHING TO CORRECT?

**Choose your new seats today!**

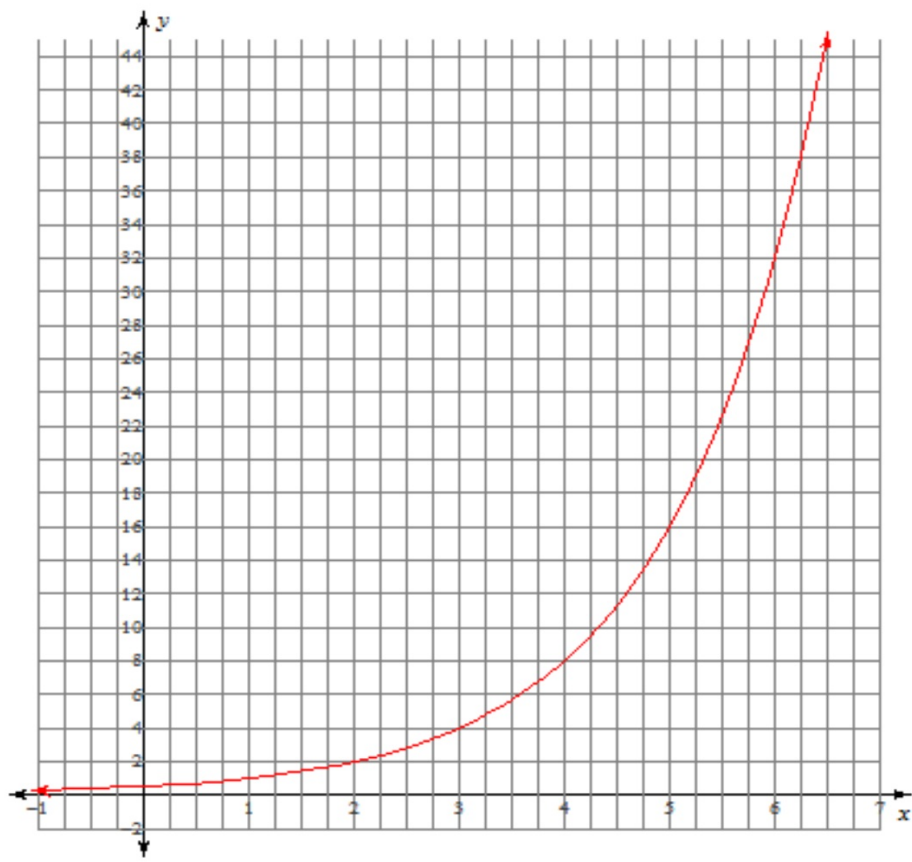
## 1/26 - Graphing Exponential Functions

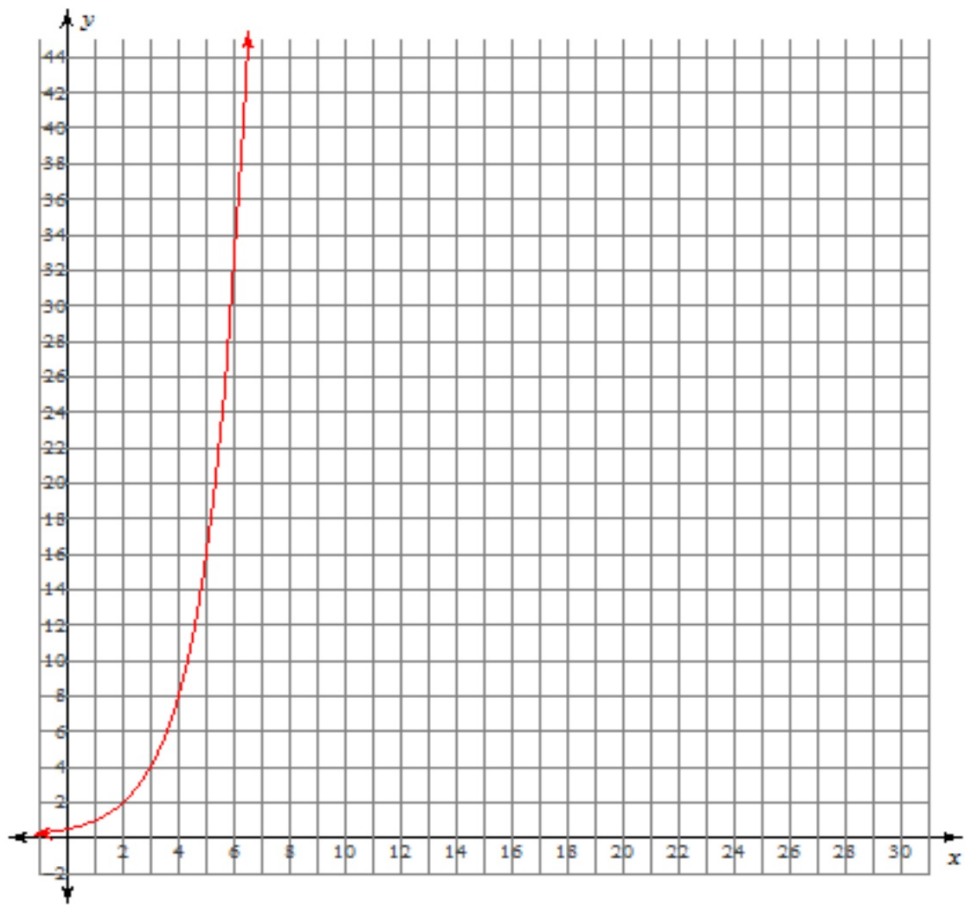
**Which would you rather have?**

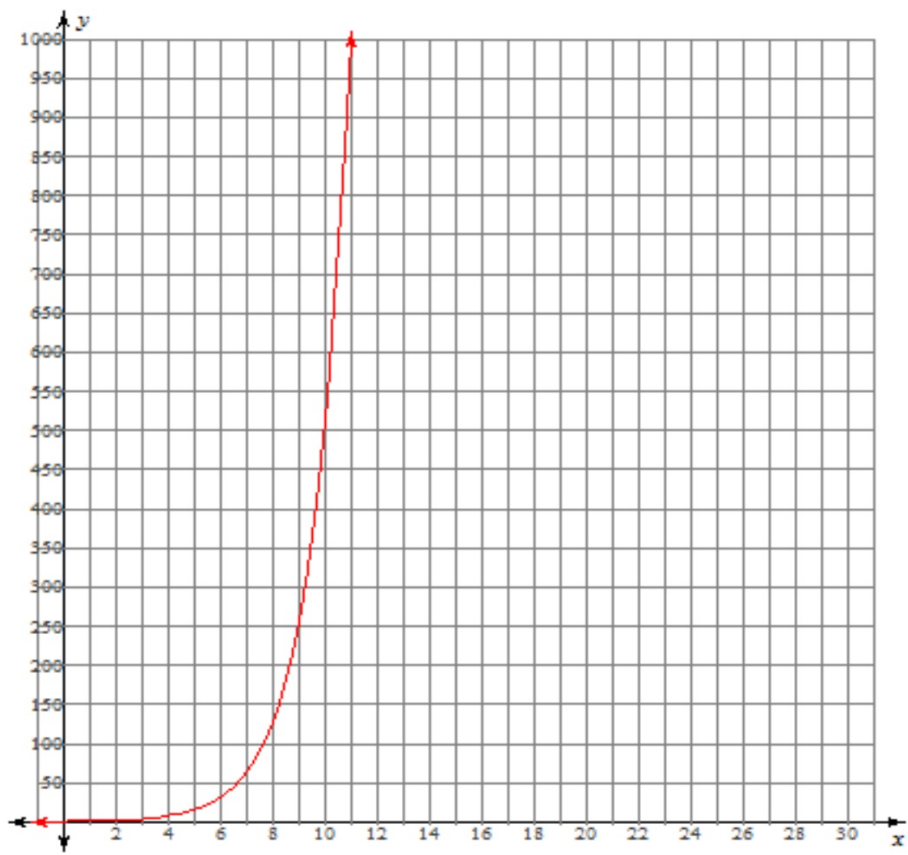
**\$10,000 for one month of work**

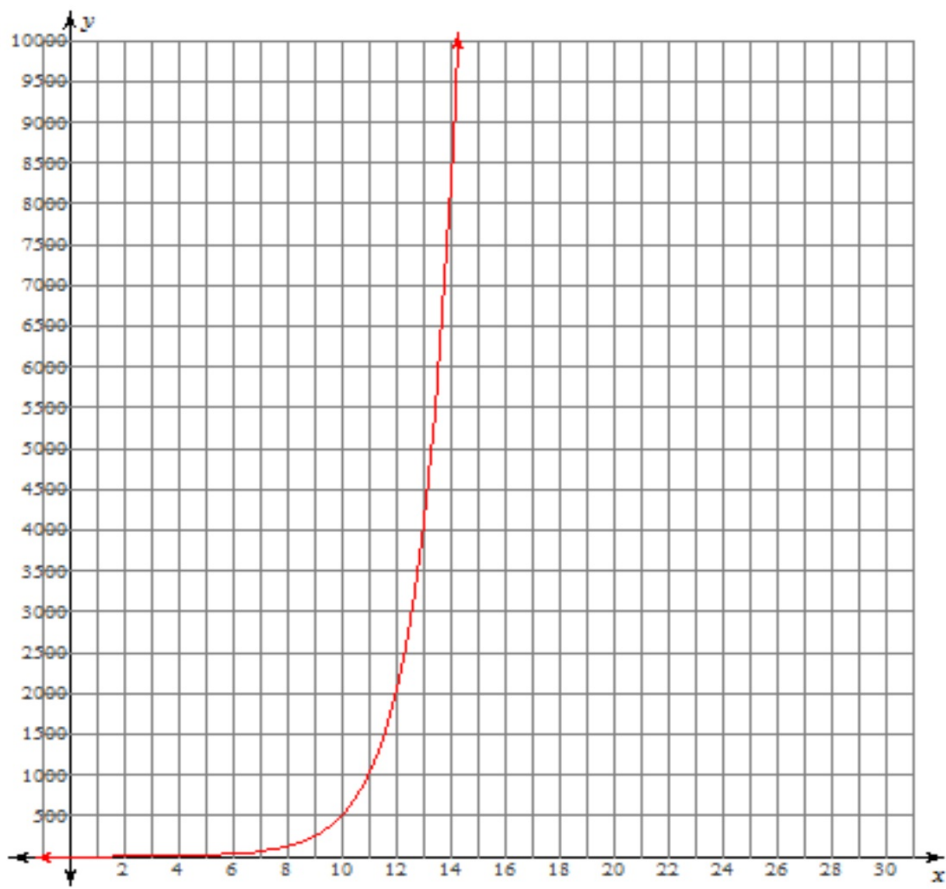
~or~

**One penny on the first day, 2 on the second, 4 on the third, 8 on the fourth... (it doubles every day)... for the same month of work**



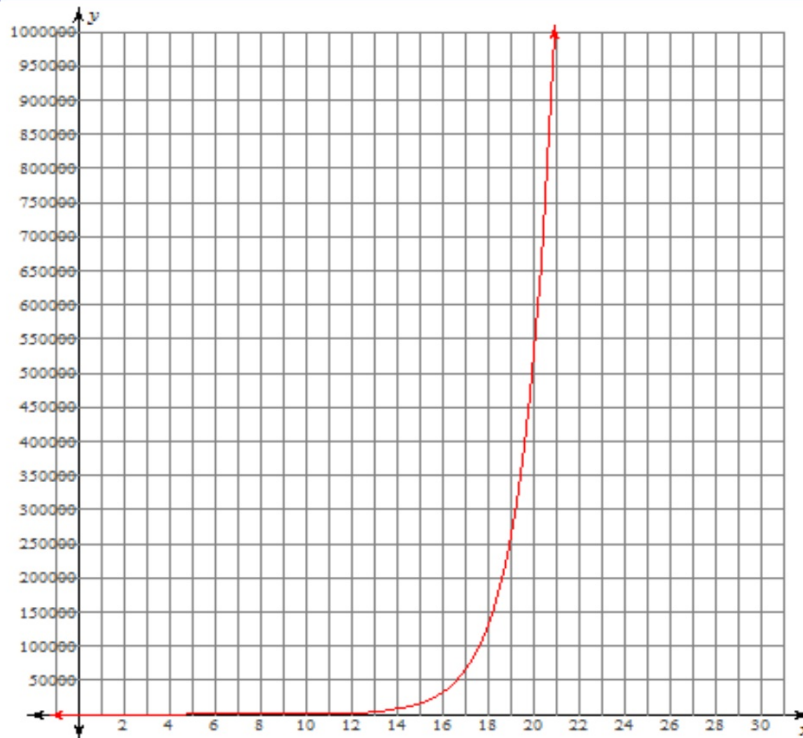




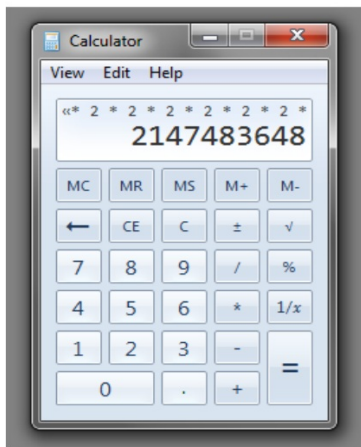


\$10,000

This is  
reached  
on day  
21!



but... this isn't a total salary...



**$2 \times 2 \times 2 \times 2 \times \dots$   
31 two's**

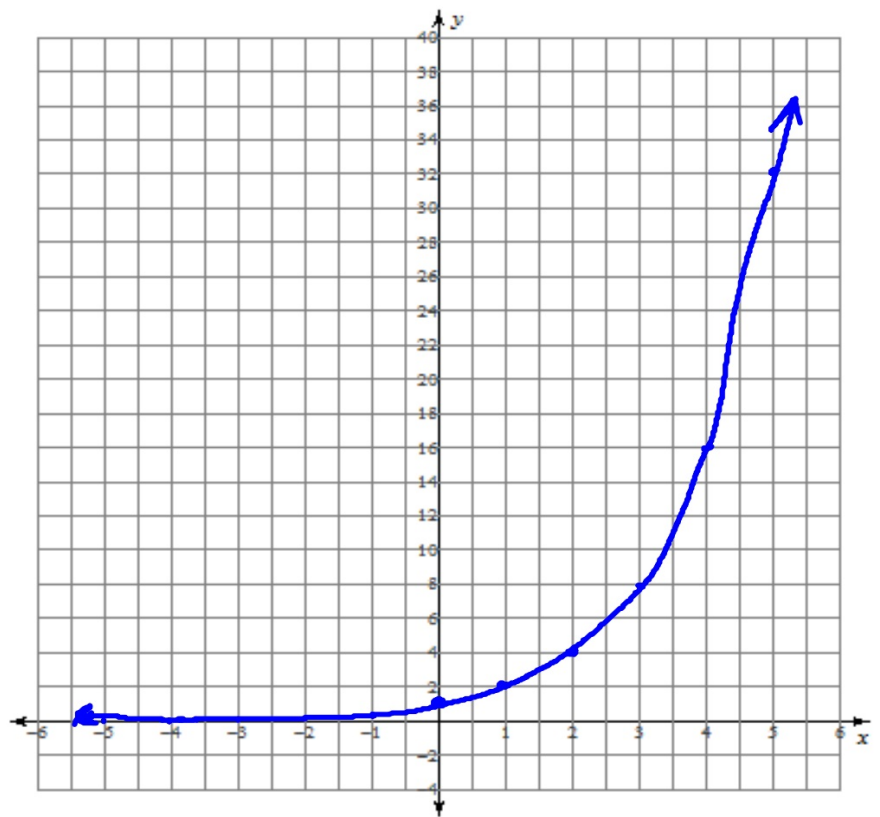
**\$21,474,836.48 as your  
DAILY pay for day 31.**

You would need to add up all of the other 30 days of DAILY pay to see what your MONTHLY pay would be.



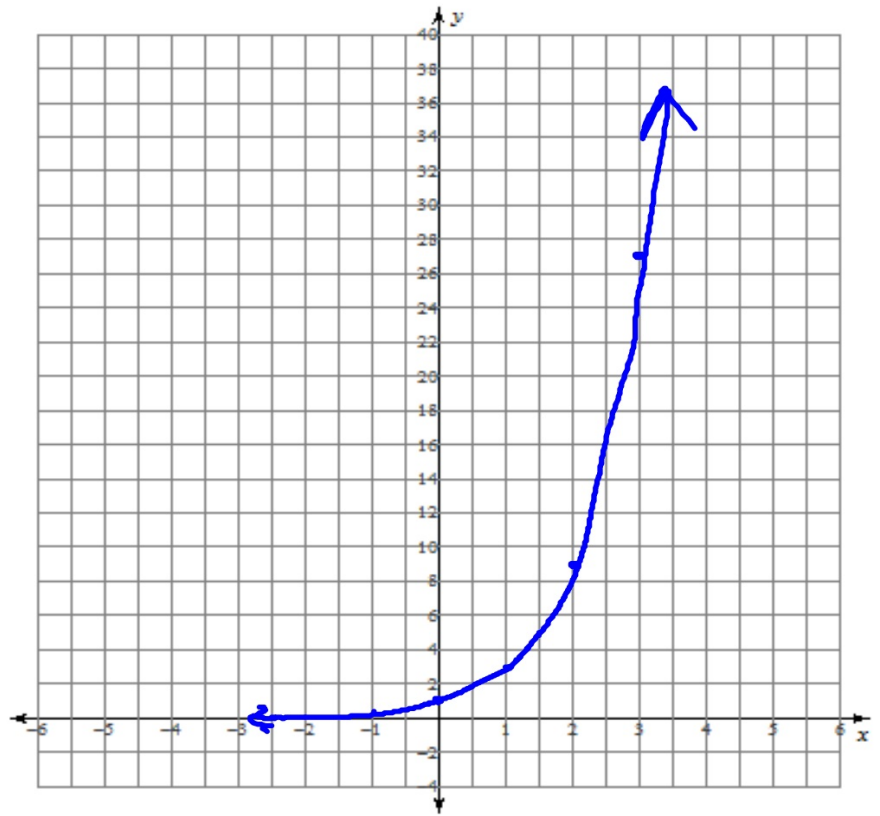
$$f(x) = 2^x$$

x	y
1	$2^1 = 2$
2	$2^2 = 4$
3	$2^3 = 8$
0	$2^0 = 1$
-1	$2^{-1} = \frac{1}{2}$
-2	$2^{-2} = \frac{1}{4}$



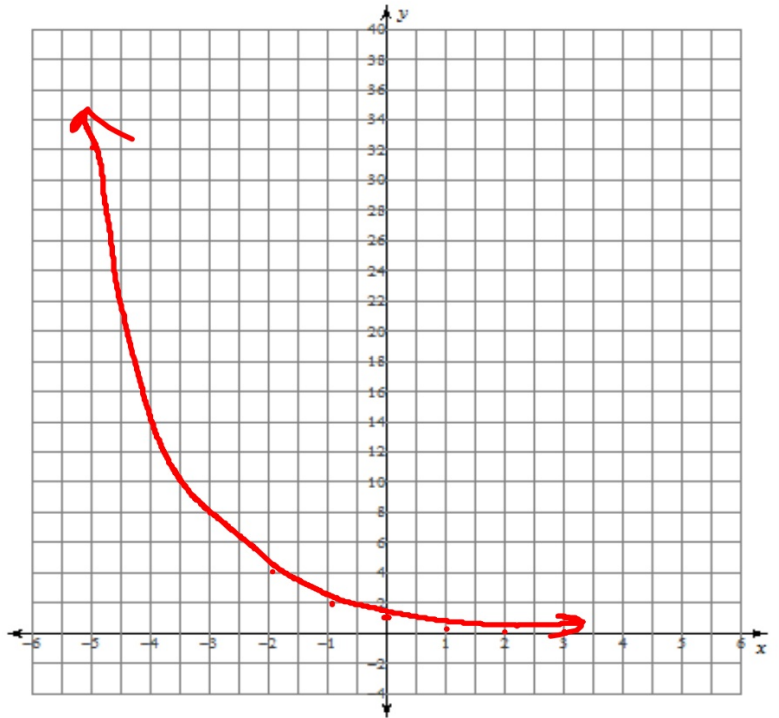
$$f(x) = 3^x$$

x	y
0	1
1	3
2	9
3	27



$$f(x) = \left(\frac{1}{2}\right)^x$$

x	y
0	1
1	1/2
2	1/4
3	1/8
...	...
-1	2
-2	4
-3	8
...	...
$-\infty$	$\infty$

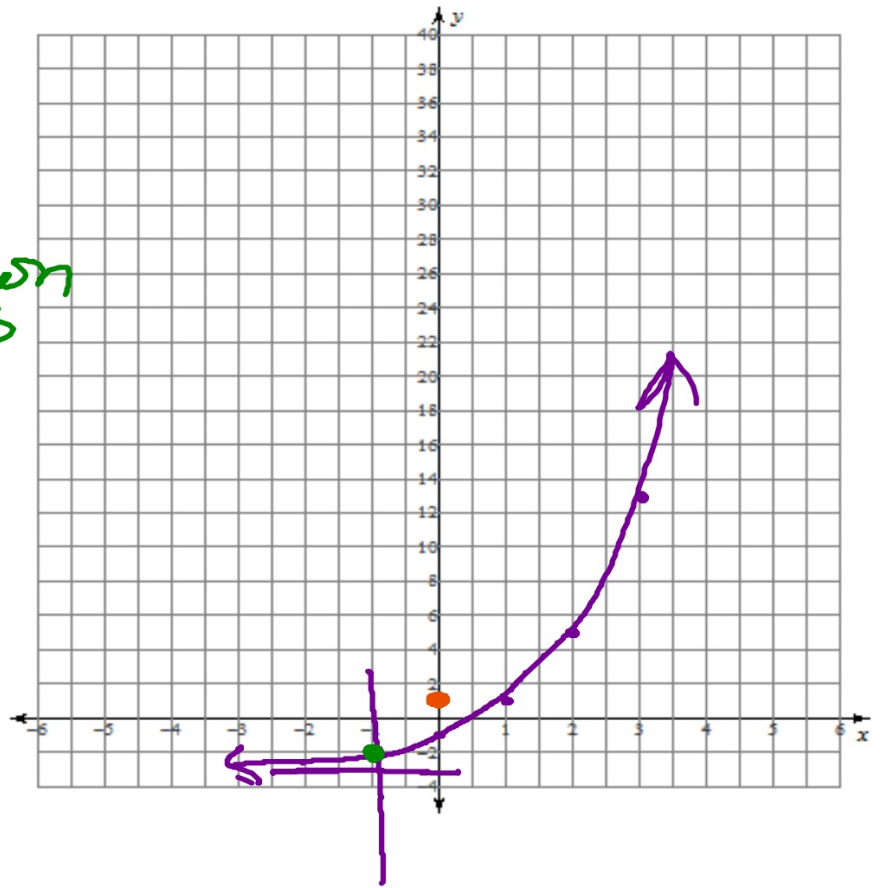


$$f(x) = 2^{x+1} - 3$$

left +

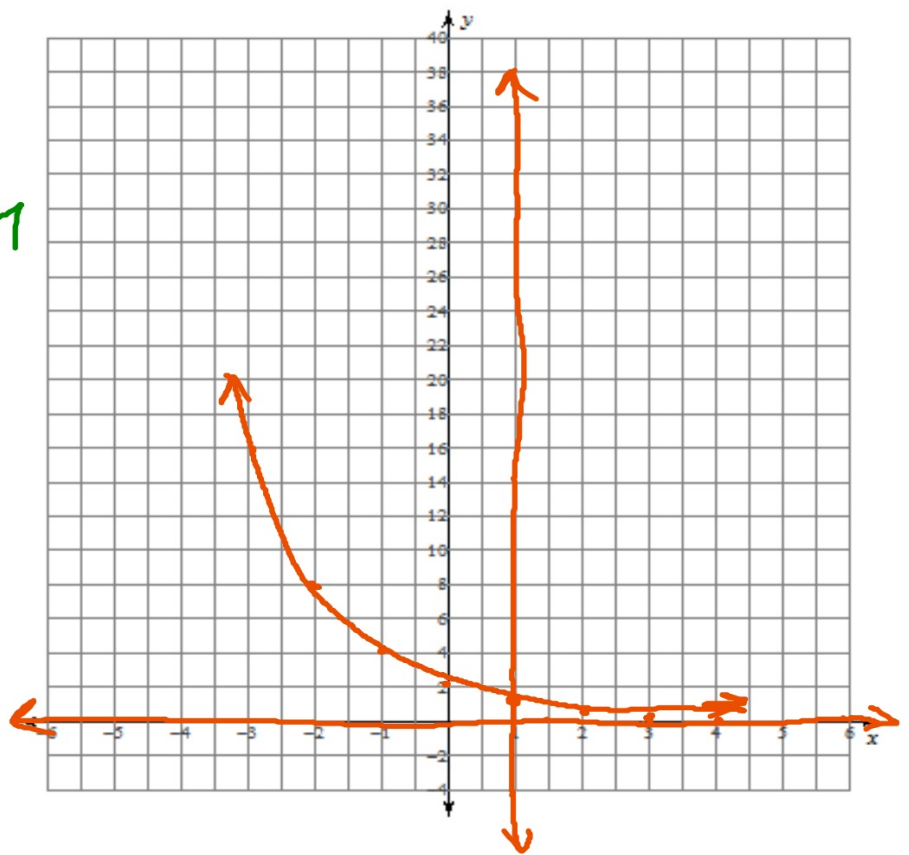
down 3

x	y
0	$2^1 - 3 = -1$



$$f(x) = \left(\frac{1}{2}\right)^{x-1}$$

to the Right 1



# HOMEWORK

WORKSHEET 7.2

**DUE** Friday