## HW 3-2 Exponential Growth Equations

## If possible, write an explicit equation to represent each pattern below. Write your equation in two equivalent forms.

1.

$\chi$	у
1	12
2	48
4	768
6	12288

2.

X	y
0	1.5
2	96
3	768
4	6144

**3.** 

$\boldsymbol{\mathcal{X}}$	у
-2	-1
0	-7
3	-16
5	-22

**4.** Samantha is counting the change in her tip jar each day. There is already \$2.50 in the jar. After 2, 3, and 4 days there is a total of \$6.00, \$7.75, and \$9.50 in her tip jar.

**5.** Write an explicit equation that would calculate the number of stars in a given round.







## Write an explicit equation to represent each pattern or graph below. Write your equation in two equivalent forms.

1.

$\chi$	у
1	12
2	48
4	768
6	12288

2.

X	y
0	1.5
2	96
3	768
4	6144

**3.** 

X	y
-2	-1
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5	-22

**4.** Samantha is counting the change in her tip jar each day. There is already \$2.50 in the jar. After 2, 3, and 4 days there is a total of \$6.00, \$7.75, and \$9.50 in her tip jar.

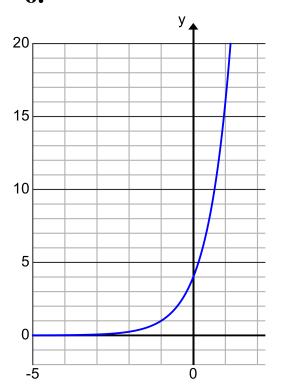
**5.** Write an explicit equation that would calculate the number of stars in a given round.



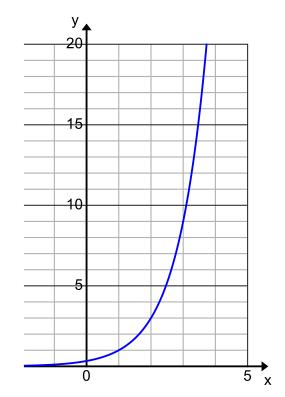
Round 2



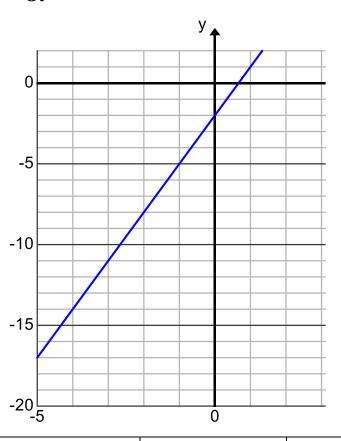
**6.** 



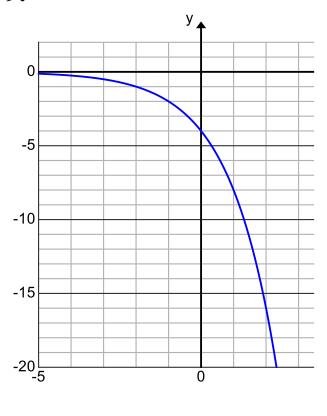
7.



8.

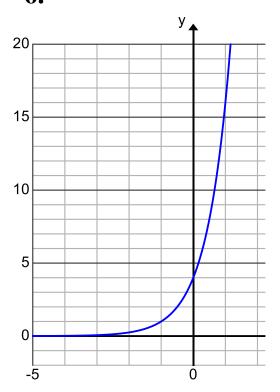


9.

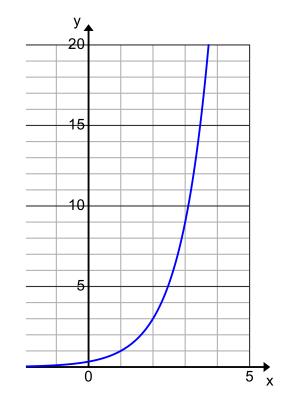


$3(4)^{x}$	$1(2)^{x}$	$4(4)^x$	-3x - 7	-2x + 3
2.5 + 1.75x	$-4\cdot 2^x$	$\frac{1}{3}(3)^x$	$\frac{3}{2}(8)^x$	

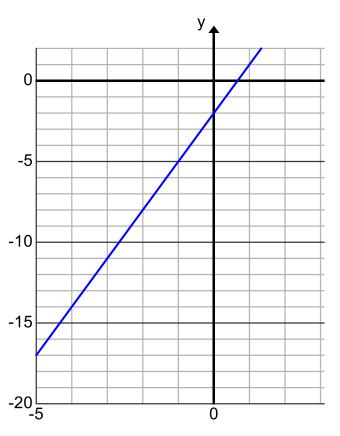
**6.** 



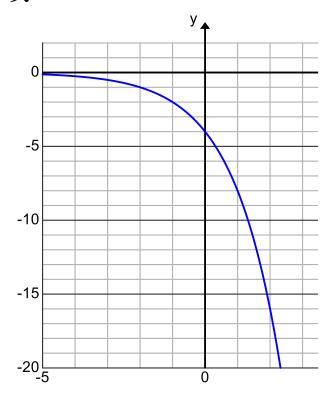
7.



8.



9.



$3(4)^{x}$	$1(2)^{x}$	$4(4)^{x}$	-3x - 7	-2x + 3
2.5 + 1.75x	$-4\cdot 2^x$	$\frac{1}{3}(3)^x$	$\frac{3}{2}(8)^x$	