

Write an explicit equation to represent each pattern below.

**Write your equation in two equivalent forms.**

1.

$x$	$y$
1	12288
2	768
4	48
6	12

2.

$x$	$y$
0	16
2	9
3	6.75
4	5.0625

3.

$x$	$y$
-1	-75
1	-12
2	-4.8
4	-0.768

4. Darrick has 200 tennis balls. Each week he loses  $\frac{1}{4}$  of his tennis balls. Find an equation to represent **how many tennis balls he has left.**

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



Round 1



Round 2



Round 3

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

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6	12

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Round 1



Round 2

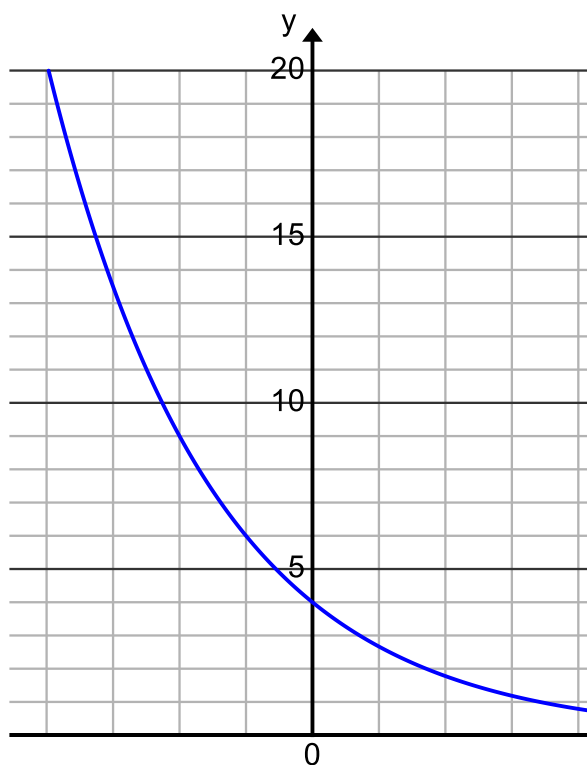


Round 3

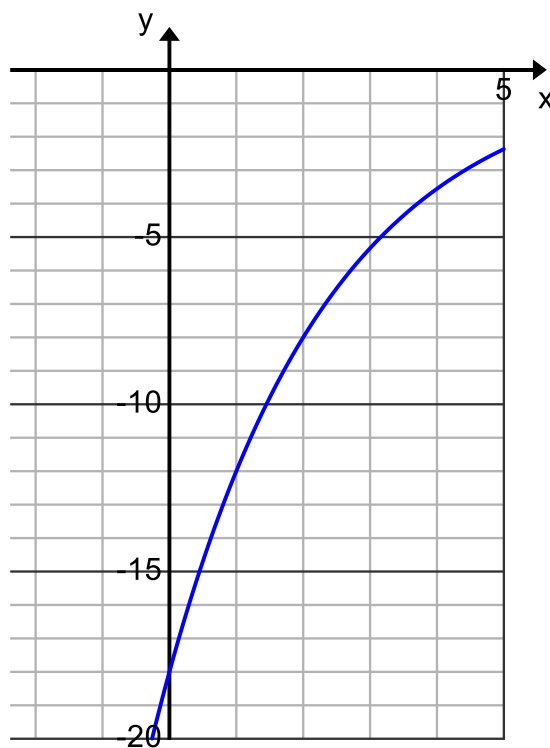
6. Benji is eating the cookies he bought from Angelo. The total amounts of cookies he has after 1, 2, 3, 4, and 5 days are 112, 95, 78, 61, and 44, respectively.

7. Erin gets \$550 from her grandparents for her 16<sup>th</sup> birthday. After one, two, and three months she has \$440, \$352, \$281.60

8.



9.

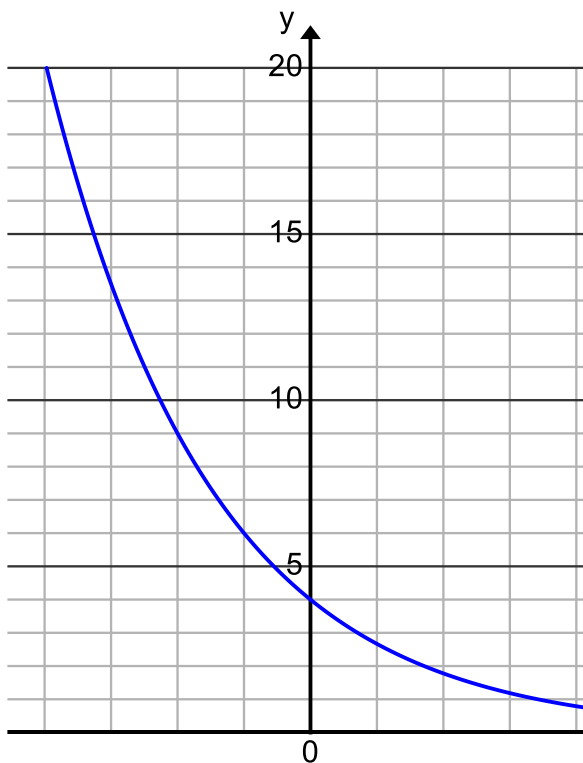


$64(.25)^x$	$16\left(\frac{3}{4}\right)^x$	$129 - 17x$	$-18\left(\frac{2}{3}\right)^x$	$-30(.4)^x$
$200\left(\frac{1}{4}\right)^x$	$550(.8)^x$	$4\left(\frac{2}{3}\right)^x$	$49152(.25)^x$	

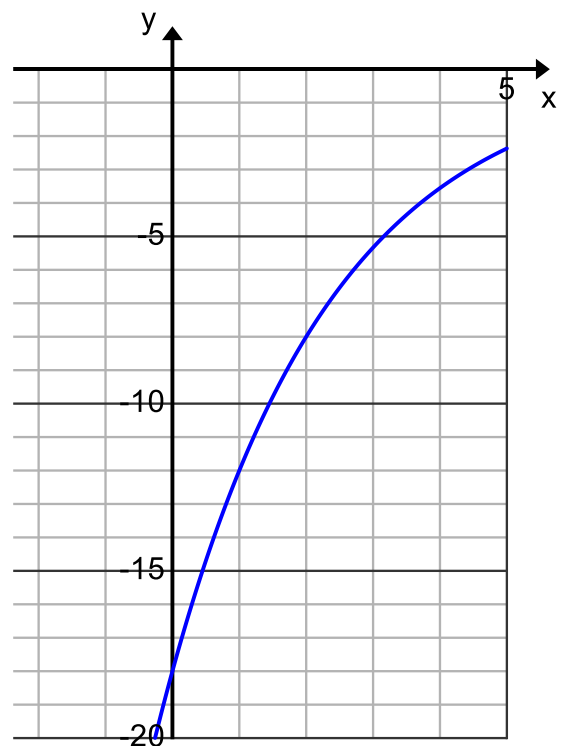
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