Name Period

Sec1 **HW 3-3**
Writing Decay Equations

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.

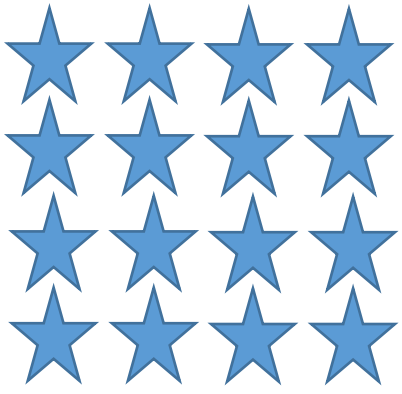
x	y
0	16
2	9
3	6.75
4	5.0625

3.

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

4. Darrick has 200 tennis balls. Each week he loses ¼ 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

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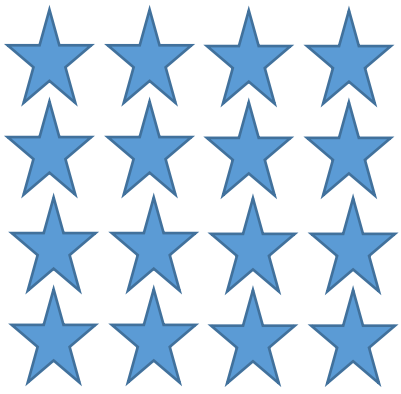


Round 1

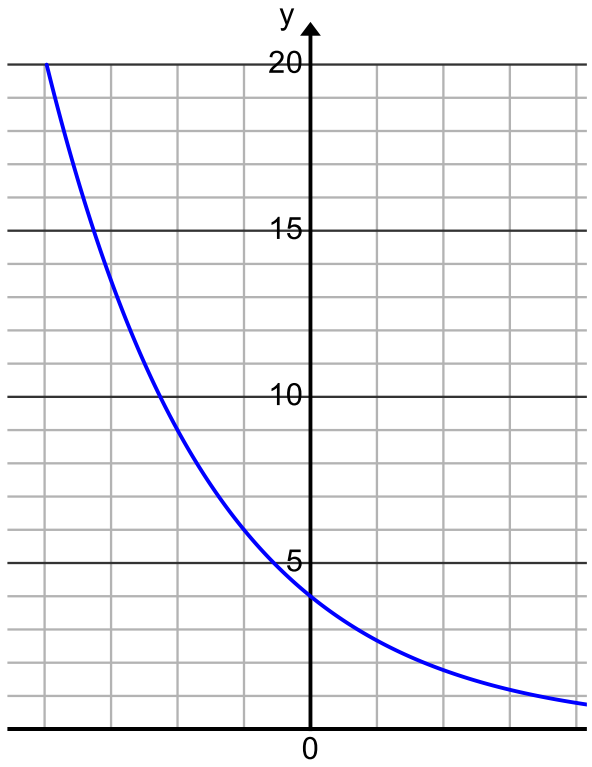
Round 2

Round 3

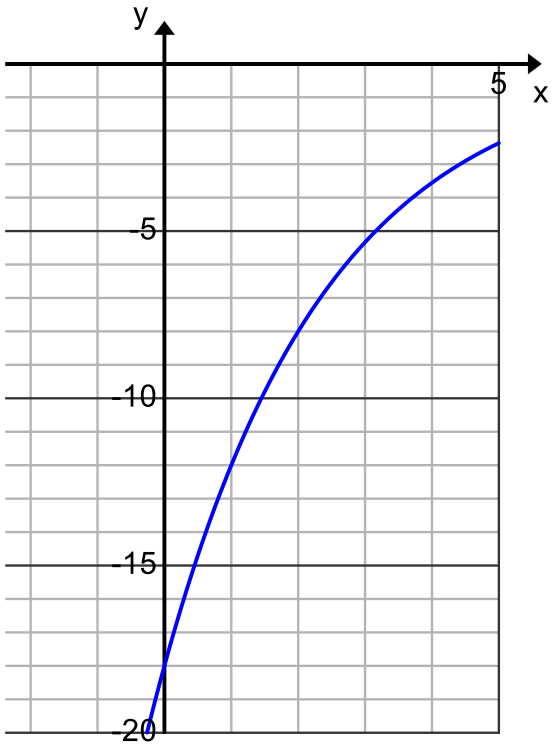
6. Benji is eating the cookies he bought from Angelo. The total amounts of cookies he has after 1, 2, 3, 4, and 5 days are 112, 95, 78, 61, and 44, respectively.

7. Erin gets $550 from her grandparents for her 16th 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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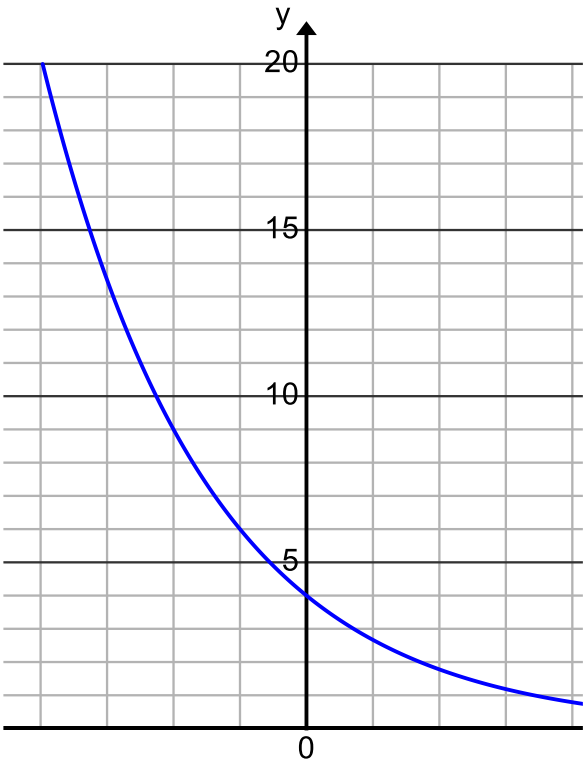

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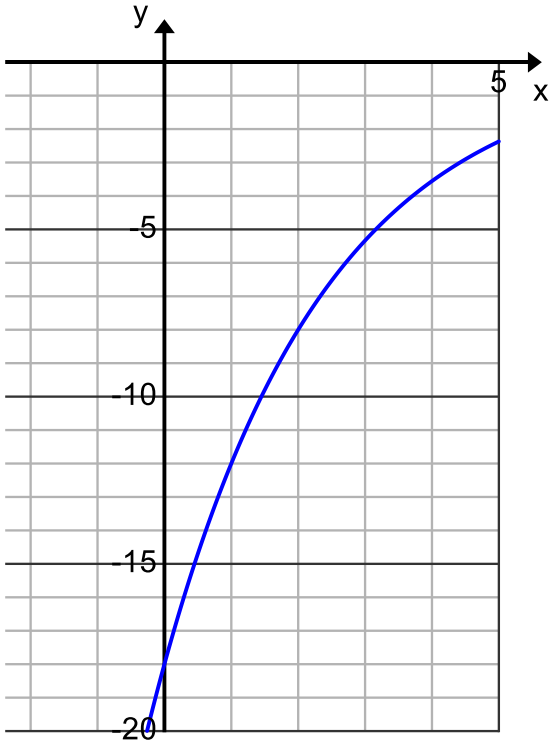

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