<u>Write an expression to model each situation</u>, then find the solution.

1. The retail price of a book is $29.99. Amazon is selling it for a 17% discount.

2. Dinner cost $38.50. You decide to leave a 15% tip.

3. You bought a Nintendo Switch for $306.75. You sold it for a 20% loss.

4. You design a sign for your yard sale. It is 15" tall. You decide to increase it by 40%.

5. Best buy is selling a video game for 20% off $55. You also have a 10% discount card. Would you rather they take 30% off the original price, or should they first take 20% off, then 10% off that price? Explain your choice.

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Write an explicit equation to represent each pattern below.
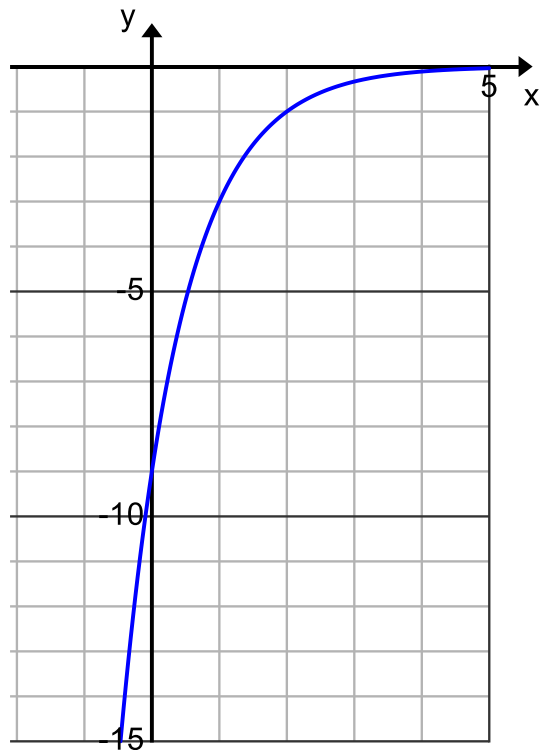**<u>Write your equation in two equivalent forms.</u>**

6. The water in a pool is slowly evaporating. It starts with 300 gallons. After a week there is 120 gallons, after weeks two and three there are 48 and 19.2 gallons.

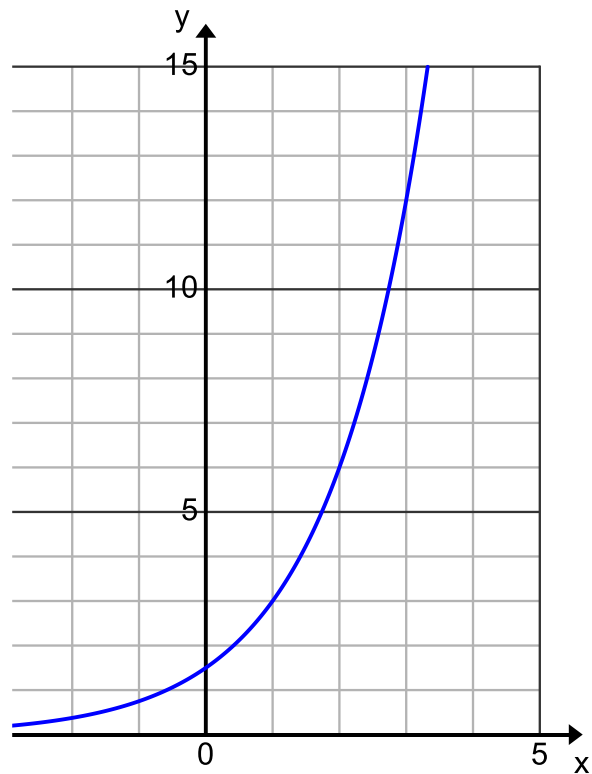   b. How much will there be after 5 weeks?

7. A population of mosquitos triple every 4 days. They started with 17 mosquitos.

   b. How many will there be after 19 days?

8.

9.

$-9\left(\dfrac{1}{3}\right)^{x}$	24.89	3.07	$\dfrac{3}{2}(2)^{x}$	44.28
245.4	21	38.5	31.38.88	

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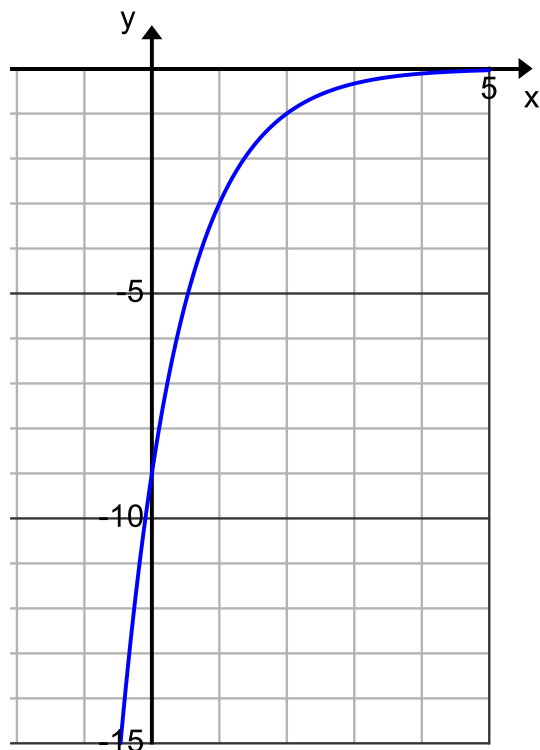**Write your equation in two equivalent forms.**

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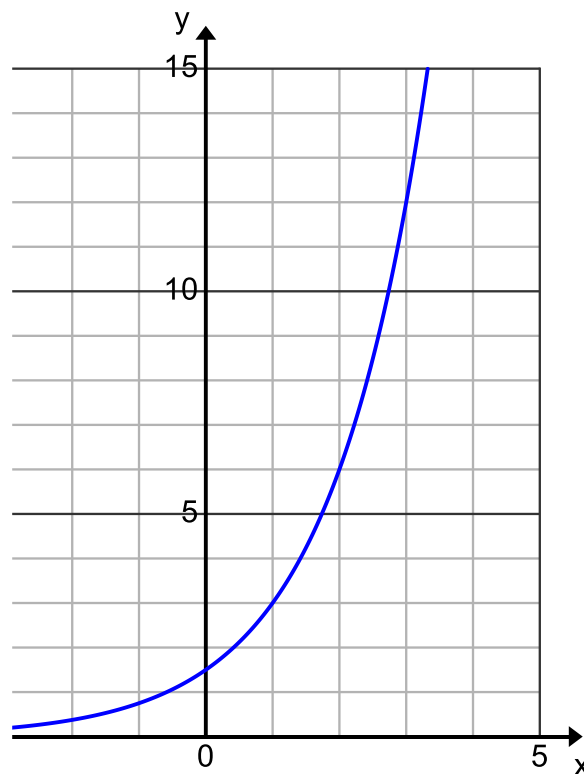b. How much will there be after 5 weeks?

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