

Name:

Period:

Linear and Exponential
Functions

7H

Ready, Set, Go!



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Ready

Topic: Writing equations of lines.

Write the equation of a line in slope-intercept form: $y = mx + b$, using the given information.

1. $m = -7, b = 4$

2. $m = 3/8, b = -3$

3. $m = 16, b = -1/5$

Write the equation of the line in point-slope form: $y - y_1 = m(x - x_1)$, using the given information.

4. $m = 9, (0, -7)$

5. $m = 2/3, (-6, 1)$

6. $m = -5, (4, 11)$

7. $(2, -5) (-3, 10)$

8. $(0, -9) (3, 0)$

9. $(-4, 8) (3, 1)$

Topic: Graphing linear and exponential functions

Set

Make a graph of the function based on the following information. Add your axes. Choose an appropriate scale and label your graph. Then write the equation of the function.

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Name:

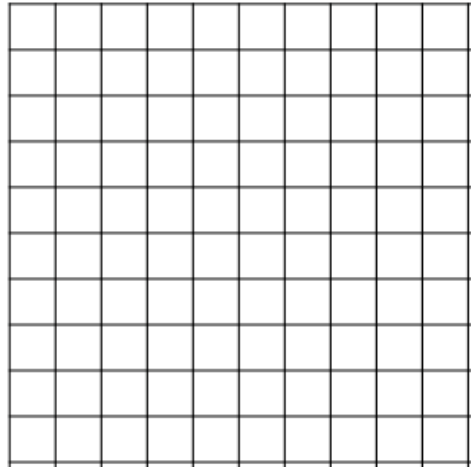
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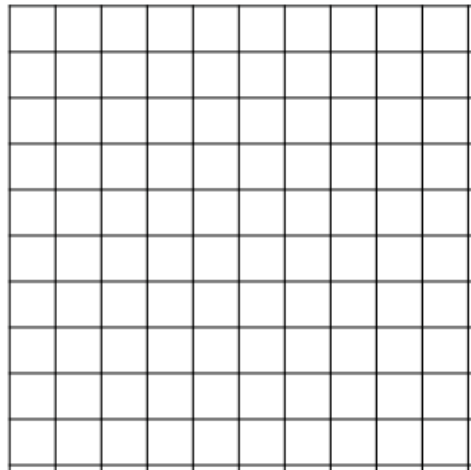
10. The beginning value of the function is 5 and its value is 3 units smaller at each stage.

Equation:



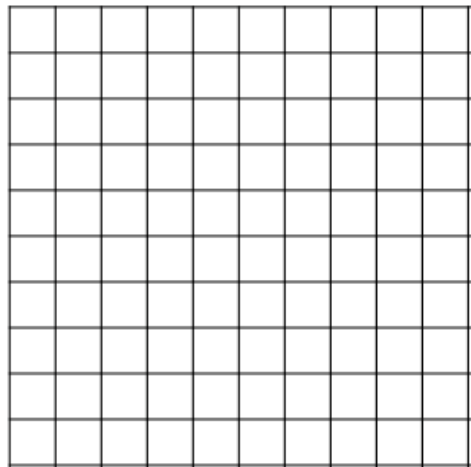
11. The beginning value is 16 and its value is $\frac{1}{4}$ smaller at each stage.

Equation:



12. The beginning value is 1 and its value is 10 times as big at each stage.

Equation:



Name:

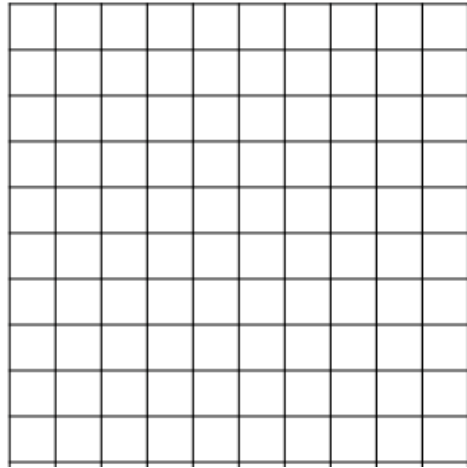
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13. The beginning value is -8 and its value is 2 units larger at each stage.

Equation:



Go

Rewrite the equations in slope-intercept form.

14. $2y + 10 = 6x + 12$

15. $5x + y = 7x + 4$

16. $(y - 13) = \frac{1}{2}(8x - 14)$

17. $(y + 11) = -7(x - 2)$

18. $(y - 5) = 3(x + 2)$

19. $3(2x - y) = 9x + 12$

20. $y - 2 = \frac{1}{5}(10x - 25)$

21. $y + 13 = -1(x + 3)$

22. $y + 1 = \frac{3}{4}(x + 3)$

Need Help? Check out these related videos:

Equations in slope-intercept form: <http://www.khanacademy.org/math/algebra/linear-equations-and-inequalitie/v/linear-equations-in-slope-intercept-form>

Equations in point-slope form: <http://www.khanacademy.org/math/algebra/linear-equations-and-inequalitie/v/linear-equations-in-point-slope-form>

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