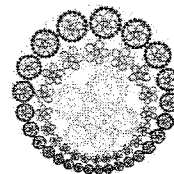


Name: _____

Sequences | 3.1

Ready, Set, Go!



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Ready

Topic: Exponents, Substitution, and Function Notation

Find each value.

1. 3^1

2. 3^2

3. 3^3

4. 3^4

For each of the following, find $f(1)$, $f(2)$ and $f(3)$

5. $f(x) = 2^x$

6. $f(x) = 3^x$

7. $f(x) = 2(x - 1) + 3$

Complete each table.

8.

Term	1st	2nd	3rd	4th	5th	6th	7th	8th
Value	2	4	8	16	32			

9.

Term	1st	2nd	3rd	4th	5th	6th	7th	8th
Value	66	50	34	18				

10.

Term	1st	2nd	3rd	4th	5th	6th	7th	8th
Value	-3	9	-27	81				

11.

Term	1st	2nd	3rd	4th	5th	6th	7th	8th
Value	160	80	40	20				

12.

Term	1st	2nd	3rd	4th	5th	6th	7th	8th
Value	-9	-2	5	12				

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Name:

Sequences | 3.1

Set

Topic: Completing a table

Fill in the table. Then write a sentence explaining how you figured out the values to put in each cell. Explain how to figure out what will be in cell #8.

13. You run a business making birdhouses. You spend \$600 to start your business, and it costs you \$5.00 to make each birdhouse.

# of birdhouses	1	2	3	4	5	6	7
Total cost to build							

Explanation:

14. You borrow \$500 from a relative, and you agree to pay back the debt at a rate of \$15 per month.

# of months	1	2	3	4	5	6	7
Amount of money owed							

Explanation:

15. You earn \$10 per week.

# of weeks	1	2	3	4	5	6	7
Amount of money earned							

Explanation:

16. You are saving for a bike and can save \$10 per week. You have \$25 already saved.

# of weeks	1	2	3	4	5	6	7
Amount of money saved							

Explanation:

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Name: _____

Sequences | 3.1

Go

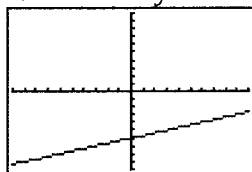
Topic: Good viewing window

When sketching a graph of a function, it is important that we see important points. For linear functions, we want a window that shows important information related to the story. Often, this means including both the x - and y -intercepts.

Example: $g(x) = \frac{1}{3}x - 6$

Window: $[-10, 10]$ by $[-10, 10]$

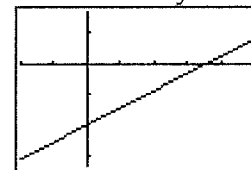
x-scale: 1 y-scale: 1



NOT a good window

Window: $[-10, 25]$ by $[-10, 5]$

x-scale: 5 y-scale: 5

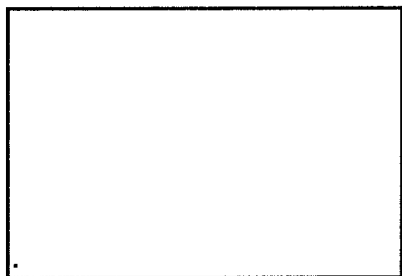


Good window

17. $f(x) = -\frac{1}{10}x + 1$

x: [,] by y: [,]

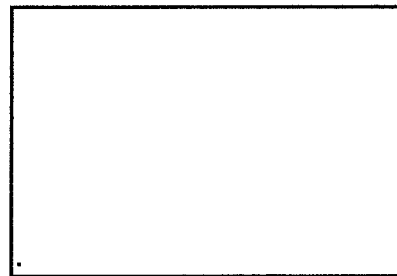
x-scale: y-scale:



18. $7x - 3y = 14$

x: [,] by y: [,]

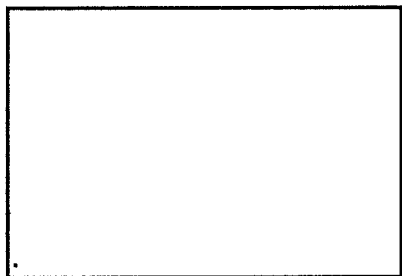
x-scale: y-scale:



19. $y = 3(x - 5) + 12$

x: [,] by y: [,]

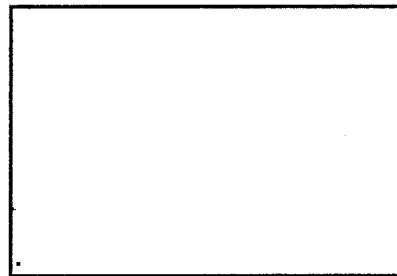
x-scale: y-scale:



20. $f(x) = -15(x + 10) - 45$

x: [,] by y: [,]

x-scale: y-scale:



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