

Lesson 2.5 ~ Recursive Routines to Equations

Name _____ Period _____ Date _____

Match each recursive rule with its slope-intercept equation.

- | | | | | |
|----------|------------------|--------------------------------|----|--------------------------|
| _____ 1. | Start Value: 4 | Rate of Change: 5 | A. | $y = 5x$ |
| _____ 2. | Start Value: -10 | Rate of Change: $-\frac{2}{5}$ | B. | $y = 5 + 4x$ |
| _____ 3. | Start Value: 5 | Rate of Change: 4 | C. | $y = -2 + 3x$ |
| _____ 4. | Start Value: -10 | Rate of Change: $\frac{2}{5}$ | D. | $y = 3 - 2x$ |
| _____ 5. | Start Value: 3 | Rate of Change: -2 | E. | $y = 4 + 5x$ |
| _____ 6. | Start Value: 5 | Rate of Change: 0 | F. | $y = -10 + \frac{2}{5}x$ |
| _____ 7. | Start Value: -3 | Rate of Change: 2 | G. | $y = 5$ |
| _____ 8. | Start Value: 0 | Rate of Change: 5 | H. | $y = -10 - \frac{2}{5}x$ |
| _____ 9. | Start Value: -2 | Rate of Change: 3 | I. | $y = -3 + 2x$ |

Determine the rate of change and the start value for each table. Write an equation in slope-intercept form.

10.

x	y
0	10
1	12
2	14
3	16
4	18

Rate of Change: _____
 Start Value: _____
 Equation: _____

11.

x	y
-1	8
0	3
1	-2
2	-7
3	-12

Rate of Change: _____
 Start Value: _____
 Equation: _____

12.

x	y
-2	0
0	10
2	20
4	30
6	40

Rate of Change: _____
 Start Value: _____
 Equation: _____

13.

x	y
1	$1\frac{1}{2}$
2	2
4	3
5	$3\frac{1}{2}$
8	5

Rate of Change: _____
 Start Value: _____
 Equation: _____

14.

x	y
-2	6
1	3
3	1
4	0
10	-6

Rate of Change: _____
 Start Value: _____
 Equation: _____

15.

x	y
5	6.8
6	7
7	7.2
8	7.4
9	7.6

Rate of Change: _____
 Start Value: _____
 Equation: _____