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## Lesson 3: Scott's Muscle March

### Ready, Set, Go



### Ready

Multiply using the distributive property.

1.  $x(x - 7)$

2.  $8(x + 3)$

3.  $3x(x - 4)$

4.  $-5(x - 4)$

5.  $7x(x - 1)$

6.  $-2x(3x + 1)$

7.  $4x(8x + 10)$

8.  $11x(-2x + 5)$

9.  $8x(2x - 1)$



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**Set**

Use first and second differences to identify the pattern in the tables as linear, quadratic, or neither. Write the recursive equation where indicated.

10.

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

A. linear  
B. quadratic  
C. neither

Pattern:

Recursive equation:

11.

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

A. linear  
B. quadratic  
C. neither

Pattern:

Recursive equation:



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**12.**

$x$	$y$
-3	-15
-2	-10
-1	-5
0	0
1	5
2	10
3	15

- A. linear
- B. quadratic
- C. neither

Pattern:

Recursive equation:

**13.**

$x$	$y$
-3	24
-2	22
-1	20
0	18
1	16
2	14
3	12

- A. linear
- B. quadratic
- C. neither

Pattern:



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**14.**

$x$	$y$
-3	48
-2	22
-1	6
0	0
1	4
2	18
3	42

A. linear

B. quadratic

C. neither

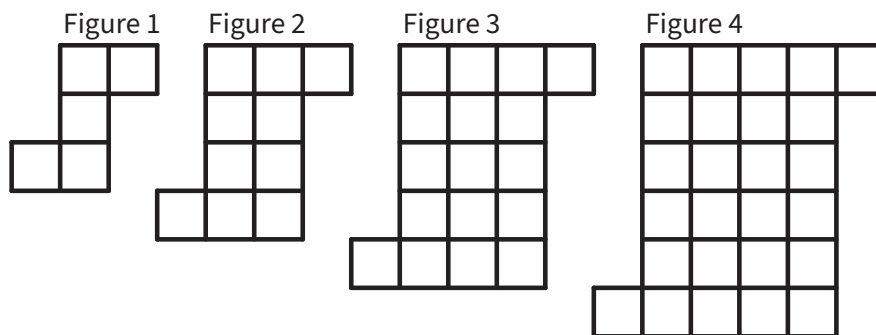
**15.**

$x$	$y$
-3	4
-2	1
-1	0
0	1
1	4
2	9
3	16

A. linear

B. quadratic

C. neither

**16.**

a. Draw Figure 5.



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Figure 5

- b. Predict the number of squares in figure 30. Show what you did to get your prediction.
- c. Write an explicit formula for finding the number of squares in any given figure.

**Go**

Write the first five terms of the sequence.

17.  $f(0) = -5; f(n) = f(n - 1) + 8$

18.  $f(0) = 24; f(n) = f(n - 1) - 5$

19.  $f(0) = 25; f(n) = 3f(n - 1)$



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**20.**  $f(0) = 6; f(n) = 2f(n - 1)$