

# Lesson 2.2 • Finding the $n$ th Term

Name \_\_\_\_\_ Period \_\_\_\_\_ Date \_\_\_\_\_

For Exercises 1–4, tell whether the rule is a linear function.

1.

$n$	1	2	3	4	5
$f(n)$	8	15	22	29	36

2.

$n$	1	2	3	4	5
$g(n)$	14	11	8	5	2

3.

$n$	1	2	3	4	5
$h(n)$	-9	-6	-2	3	9

4.

$n$	1	2	3	4	5
$j(n)$	$-\frac{3}{2}$	-1	$-\frac{1}{2}$	0	$\frac{1}{2}$

For Exercises 5 and 6, complete each table.

5.

$n$		1	2	3	4	5
$f(n) = 7n - 12$						

6.

$n$		1	2	3	4	5
$g(n) = -8n - 2$						

For Exercises 7–9, find the function rule for each sequence. Then find the 50th term in the sequence.

7.

$n$	1	2	3	4	5	6	...	$n$	...	50
$f(n)$	9	13	17	21	25	29	...		...	

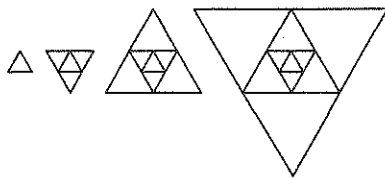
8.

$n$	1	2	3	4	5	6	...	$n$	...	50
$g(n)$	6	1	-4	-9	-14	-19	...		...	

9.

$n$	1	2	3	4	5	6	...	$n$	...	50
$h(n)$	6.5	7	7.5	8	8.5	9	...		...	

10. Use the figures to complete the table.



$n$	1	2	3	4	5	...	$n$	...	50
Number of triangles	1	5	9			...		...	

11. Use the figures above to complete the table. Assume that the area of the first figure is 1 square unit.

$n$	1	2	3	4	5	...	$n$	...	50
Area of figure	1	4	16			...		...	