Arithmetic Sequences 2: Finding arithmetic and recursive rules starting with n = 0 and n = 1

Write a function rule for each table then write the recursive rule for the same sequence.

1.

x	1	2	3	4	5
f(x)	5	8	11	14	17

Slope: _____ Y-intercept_____ Function Rule: _____

n	1	2	3	4	5
a_n	5	8	11	14	17

Starting Point_____ Constant Difference: _____ Recursive rule:_____

2.

x	0	1	2	3	4
f(x)	20	18	16	14	12

Slope: _____ Y-intercept_____ Function Rule: _____

n	0	1	2	3	4
a_n	20	18	16	14	12

Starting Point_____ Constant Difference: _____ Recursive rule:_____

3.

x	1	2	3	4	5
f(x)	50	55	60	65	70

Slope: _____ Y-intercept_____ Function Rule: _____

n	1	2	3	4	5
a_n	50	55	60	65	70

Starting Point_____ Constant Difference: _____ Recursive rule:_____

4.

x	0	1	2	3	4
f(x)	100	50	0	-50	-100

Slope: _____ Y-intercept_____ Function Rule: _____

n	0	1	2	3	4
a_n	100	50	0	-50	-100

Starting Point_____ Constant Difference: _____ Recursive rule:_____

Find the missing terms for the arithmetic sequence and state the common difference

7. 6, 11, ___, ___, 26, ____

Common difference: _____

8. 2, ___, ___, ___, 18, ____

Common difference: _____

Two consecutive terms in an arithmetic sequence are given. Find the **missing terms**, the **constant difference**, the **function rule**, and the **recursive rule**

9. $f(2) = 5$, $f(3) = 12$ Find what $f(4) =$ _____ and what $f(5) =$ _____

Constant difference_____ Function Rule_____ Recursive Rule_____

10. $f(4) = 6$, $f(5) = 8$ Find what $f(6) =$ _____ and what $f(7) =$ ____

Constant difference_____ Function Rule_____ Recursive Rule_____