

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: _____