H.Geometry – Chapter 2 – Definition Sheet

Section 2.2 (day 2)

Function Rule

- A rule for creating number sequences
- For each term number (n) a value of the function is Generated term #

Example: $4n-1$

Finding the Difference

n	1	2	3	4	5
f(n)	-4	-3	-2	-1	0

+1 +1 +1 difference

n	1	2	3	4	5
f(n)	1	5	9	13	17

+4 difference

n	1	2	3	4	5
f(n)	3	1	-1	-2	-5

-2 difference

Sequences with constant differences

- The coefficient (multiplier) of term n is the constant difference
- Find the addend by checking the first term (n=1)

Finding the Rule Practice

n	1	2	3	4	5	6
f(n)	7	2	-3	-8	-13	-18

-5 difference

$f(n) = -5n +$ ____

difference

check w/ first term:

$-5(1) + 12 = 7$

$-5(2) + 12 = 2$

Rule:

$f(n) = -5n+12$

Function Notation

f(n) = Rule for any number (n)

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Linear Function

- Function with constant difference (add/subtract)
- When graphed, points lie on a straight line.
- Exponent on n is 1

Term	1	2	3	4	5	6	...	n	...	20
Value	5	4	3	2	1	0	...	$-1n+6$	...	-14

-1 -1 -1 -1

$-1n+$____ check: $-1(1)+6=5$

$-1(2)+6=4$

Term	1	2	3	4	5	6	...	n	...	20
Value	4	6	8	10	12	14	...	$2n+2$	...	42

+2 +2

$2n+$____ c

check $2(1)+2=4$

$2(2)+2=6$

Term	1	2	3	4	5	6	...	n	...	20
Value	-2	1	4	7	10	13	...	$3n-5$	...	55

+3 +3 +3

$f(n)=3n+$____ check: $3(1)+(-5)=-2$

$3(2)+(-5)=1$

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