

9/15/15  
 Day 5 How many  
 Day 10 make table  
 Day 15 make graph

Day 5 11 Boxes  
 Day 10 22 Boxes

x	y	Process
1	3	3 + 2(1)
2	5	3 + 2(2)
3	7	3 + 2(3)
4	9	3 + 2(4)

$x = x$   $y =$

Sequence  
 A list of # with a pattern

EX: 3, 5, 7, 9

ARITHMETIC PATTERN  
 1, 5, 9, 13, ...  
 Constant Rate of Change  
 = constant difference  
 Addition / subtraction / multiplication

EXPLICIT EQUATION  
 RECURSIVE → NEXT  
 next = previous + 2  
 F(2) = ?  
 output(x)

Function notation

Days	Positives
1	f(1) = 3
2	f(2) = 5
3	f(3) = 7
4	f(4) = 9
15	f(15) = 2(15) + 1 = 31

$f(x) = 2x + 1$      $f(x) = 3 + 2(x-1)$   
 $x = 2 \rightarrow 1$



Day 5 How many = 11  
 Day 10 = 21  
 2 make a table  
 3 make graph  
 4. explicit equation

x	y	Process
1	3	3 + 2(0)
2	5	3 + 2(1)
3	7	3 + 2(2)
4	9	3 + 2(3)
5	11	3 + 2(4)
10	21	3 + 2(9)

out thagts processing calom.

DISCUSSION  
 $y = 3 + 2(x-1)$   
 $3 + 2x(-2)$   
 $2x + 3 + (-2)$   
 $y = 2x + 1$

CON + 1005 = corrected  
 DISCREAT = not consistent  
 not connected

Sequence - A list of numbers with a pattern  
 ex = 3, 5, 7, 9, ...

Recursive

### Arithmetic Sequence

+1 constant rate of change  
 ex = 1, 5, 9, 13... constant rate of change  
 Addition/subtraction

next = previous + 2 → Recursive equation  
 explicit

day	pushups	Process equation (a/n)
1	3	$3 + 2(0)$
2	5	$3 + 2(1)$
3	7	$3 + 2(2)$
4	9	$3 + 2(3)$
5	11	$3 + 2(4)$
10	21	$3 + 2(9)$

$$2x + 1$$

function notation

$$f(x) = y$$

input x      output y

days	pushups
1	$f(1) = 3$
2	$f(2) = 5$
3	$f(3) = 7$
4	$f(4) = 9$
15	$f(15) = 205 + 1$
n	$f(n) = 2n + 1$
f(x)	$f(x) = 2x + 1$

$$y = 3 + 2(x-1) \quad y = 2x + 1$$

$$y = 3 \cdot 2^x$$

or

$$f(x) = 3 \cdot 2^x$$