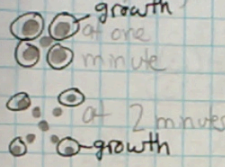
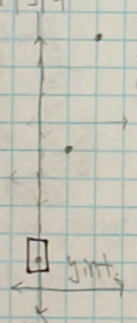
My thoughts:



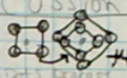

| minutes | 0 | 1 | 2 |
|---|---|---|---|
| growth | 1 | 5 | 9 |



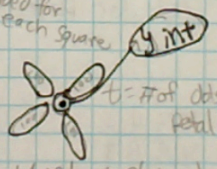

(y = 4x + 1)
add 4 to orig. #.

Group Work:
1. adding 4 each time
2. 13 at 3 minutes
3. 401 dots at 100 minutes
4. 802 dots at 200 minutes
5. y = 4x + 1

Discussion



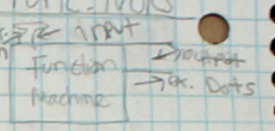

| min | dots | process |
|---|---|---|
| 0 | 1 | 1 + 0(4) |
| 1 | 5 | 1 + 4 = 1 + 1(4) |
| 2 | 9 | 1 + 4 + 4 = 1 + 2(4) |
| 3 | 13 | 1 + 4 + 4 + 4 = 1 + 3(4) |
| 100 | 401 | 1 + 100(4) |
| t | | 1 + t(4) |




y = 4t + 1
4 dots added for each square
mid. dot
y int.
t = # of dots in a petal

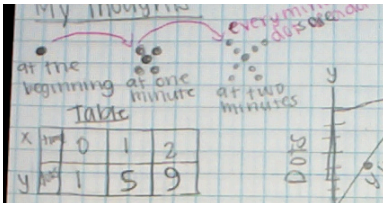
y intercept is also Constant term

Func. Notes



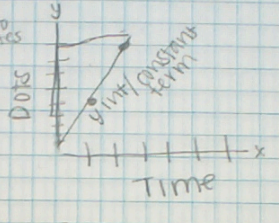

Function Notation:
input
f( ) = output
f( ) = function of
f(51) = 205
4(51) + 1 = 205
f(x) = 2x + 1
Rule to get output
f(-2) = 2(-2) + 1 = -3
f(7) = 2(7) + 1 = 15

My thoughts:




Table

| x (min) | 0 | 1 | 2 |
|---|---|---|---|
| y (dots) | 1 | 5 | 9 |




equation
y = 4x + 1

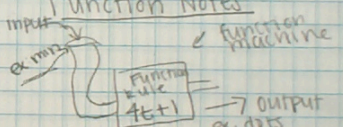
Our thoughts
how many dots at 3 minutes? 13
~~How many dots at 100 minutes?~~ 401
~~How many dots are there at t minutes?~~ y = 4t + 1
you see how much you start with and then how many you're adding each time

Discussion y int = constant term
time is always independent

| min x | dots y | process column |
|---|---|---|
| 0 | 1 | 1 = 1 + 0(4) |
| 1 | 5 | 1 + 4 = 1 + 1(4) |
| 2 | 9 | 1 + 4 + 4 = 1 + 2(4) |
| 3 | 13 | 1 + 4 + 4 + 4 = 1 + 3(4) |
| 100 | 401 | 1 + 100(4) |
| t | | 1 + t(4) |

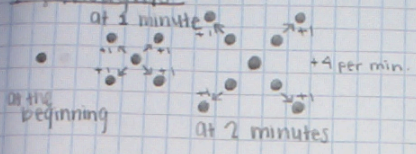
2 groups of 4

Function Notes




Function Notation:
F(100) = 401 (input, output)
f(51) = 205
4(51) + 1
f(x) = 2x + 1
input, function rule
F(-2) = 2(-2) + 1 = -3
f(7) = 2(7) + 1 = 15

## My Thoughts



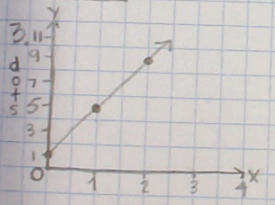

1. How are the dots growing? show it in the picture.

2. make a table

| min | dots |
|---|---|
| 0 | 1 |
| 1 | 5 |
| 2 | 9 |

ordered pairs
(0,1) ← y-intercept
(1,5)
(2,9)
for graph

3.




## Our Thoughts

1.
2. 13 dots
3. 401 dots
4.
5.
6.

## The Discussion

- In the graph, maybe we shouldn't connect the dots.

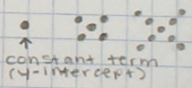
| min | dots | process |
|---|---|---|
| 0 | 1 | 1+4(0) |
| 1 | 5 | 1+4(1) |
| 2 | 9 | 1+4+4=1+4(2) |
| 3 | 13 | 1+4(3) |
| 100 | 401 | 1+4(100) |

+1 +4

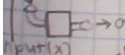
m(slope) = 4/1 = 4

1 + 4t

slope




## Function Notes




Function Notation

f(5)=4(5)+1

f(3) = 13

input → output

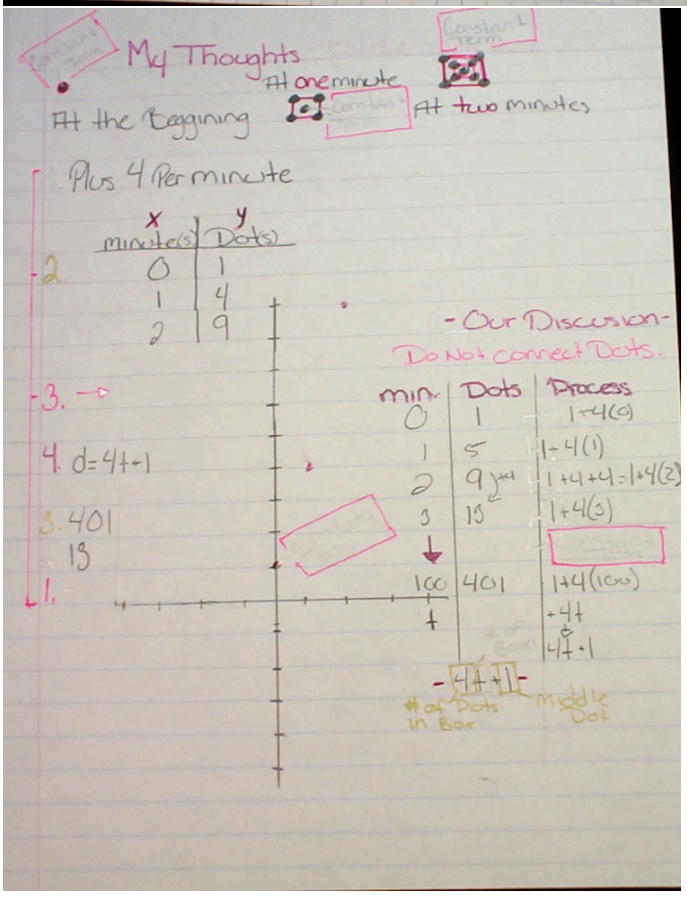
f(x) = 2x+1 f(-2) = -3

f(-2)=2(-2)+1

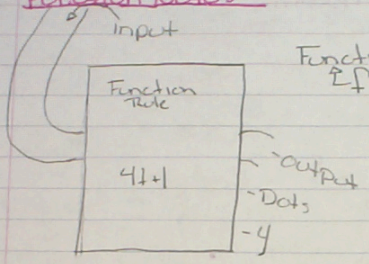
f(7)=2(7)+1 ← f(7) = 15

Ashley's: # of dots in a box → 4t+1 (# of boxes; middle dot)

Easton's: # of rings → 4t+1 (# of dots in a petal; middle dot)



# Function Notation




Function Notation
f(3) = 13
input output

$f(-2) = -3$
$f(7) = 15$

$f(x) = 2x + 1$
Rule to get output

$f(51) = 4(51) + 1 = 205$