

Linear and Quadratic Parent Functions

Do Now

First two problems of your new booklet.

1. A student arranged some cans of soup in a triangular pattern on a table. The top row had 2 cans, the second row had 4 cans, the third row had 6 cans, and so on. The arrangement is shown below.



2. The table shows a set of values for x and y .

x	0	1	2	3	4
y	-4	0	4	8	12

Which equation best represents this set of data?

A $y = x - 4$
B $y = 3x - 4$
C $y = 2x - 2$
D $y = 4x - 4$

calculator

Which equation gives the total number of cans in arrangement, T , when the cans are stacked n high?

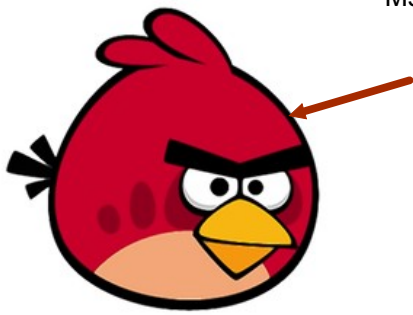
~~$T = \frac{n(n+1)}{2}$~~
 ~~$T = n(n+1)$~~
 $T = \frac{n(n+1)}{2}$
 $T = n(n-1)$

$()$ #rows | #cans
 $\frac{1}{2} \quad 2$
 $\frac{2}{2} \quad 6$
 $\frac{3}{2} \quad 12$

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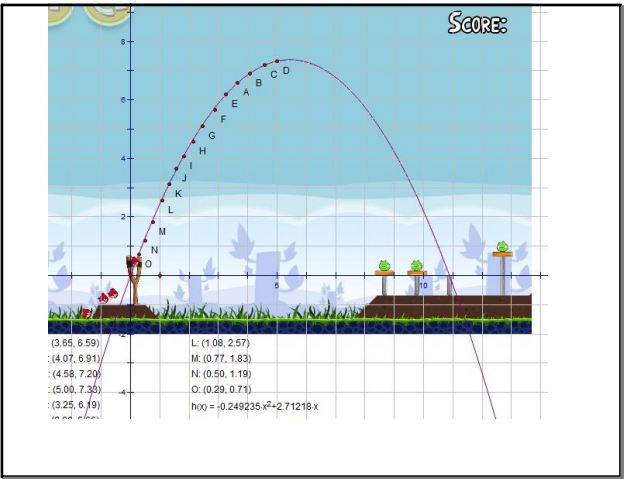


Ms. Gonzales
"Ms. G"

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Foldable (front)

Linear
Parent
function

Quadratic
Parent
Function

Feb 3-10:00 PM

Linear and Quadratic Parent Functions

Inside top

Equation
 $y = x$
 $(y = 1x + 0)$

Equation
 $y = x^2$
 $(y = 1x^2 + 0x + 0)$

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Inside middle

Table

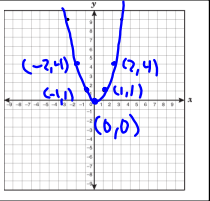
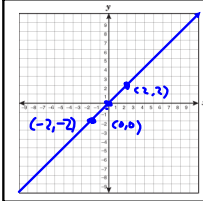
x	y
-1	-1
0	0
1	1
2	2

Table

x	y
-1	1
0	0
1	1
2	4

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Inside bottom



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Domain:
all real numbers
Range:
all real numbers

Domain:
all real numbers
Range:
 $y \geq 0$

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