

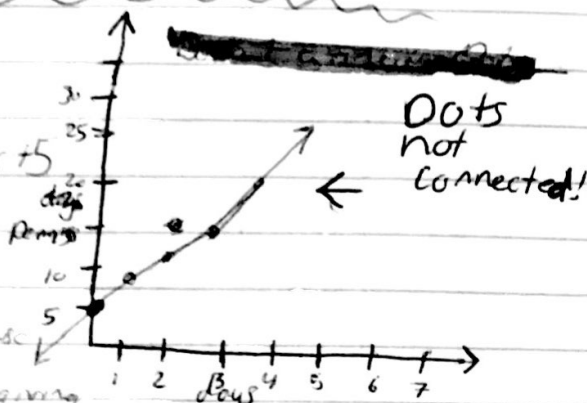
SWABAT Determine Differences in discrete & continuous functions

What is one invention you would excited? An invention that would cure all diseases & so on because

x	f(x)
0	5
1	8
2	12
3	15
4	18

Linear/Arithmetic

recursive - $f(x-1) + 3$
 exponential - $f(x) = 3x + 5$



This is a discrete function

Do not connect the dots because you are giving her pennies ONCE a day, not every second. Each dot represents when you give her pennies so there can't be dots between them (line). This is DISCRETE.

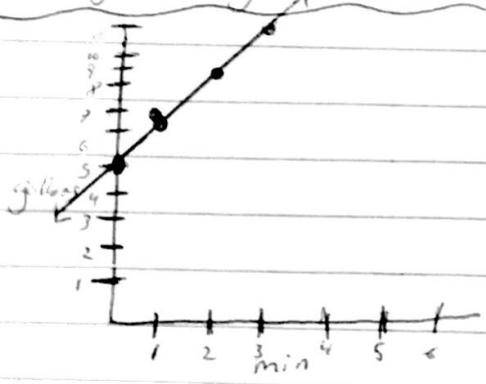
Discrete an interval that is not always going.
 ex. once every 24 hours.

Continuous an interval that is always going.
 ex. filling a pool w/ a hose, it's always being filled, not interrupted.

x	f(x)
0	5
1	7
2	9
3	11

Linear/Arithmetic

$R = f(x-1) + 2$
 $E = f(x) = 2x + 5$



This is a continuous function.

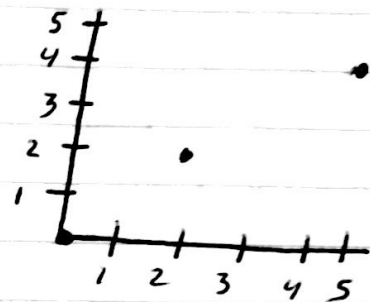
When not enough info + context to determine if continuous or discrete → default to continuous.

Domain \rightarrow X values
interval notation

[] if equal

() if not equal

∞ will always have a) around it



$\in [0, \infty)$

↑ ↑
start of the end
the domain of the
domain domain