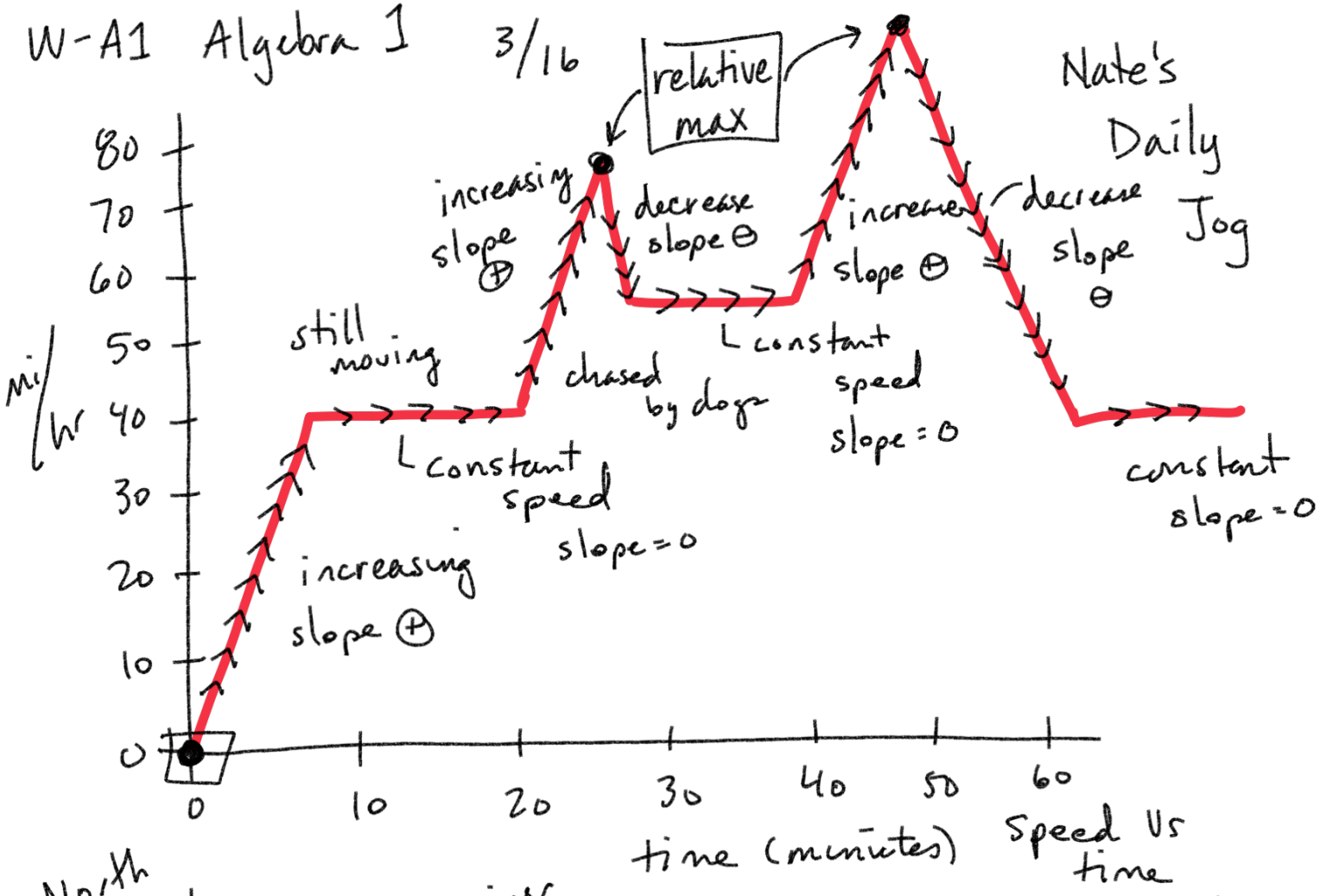
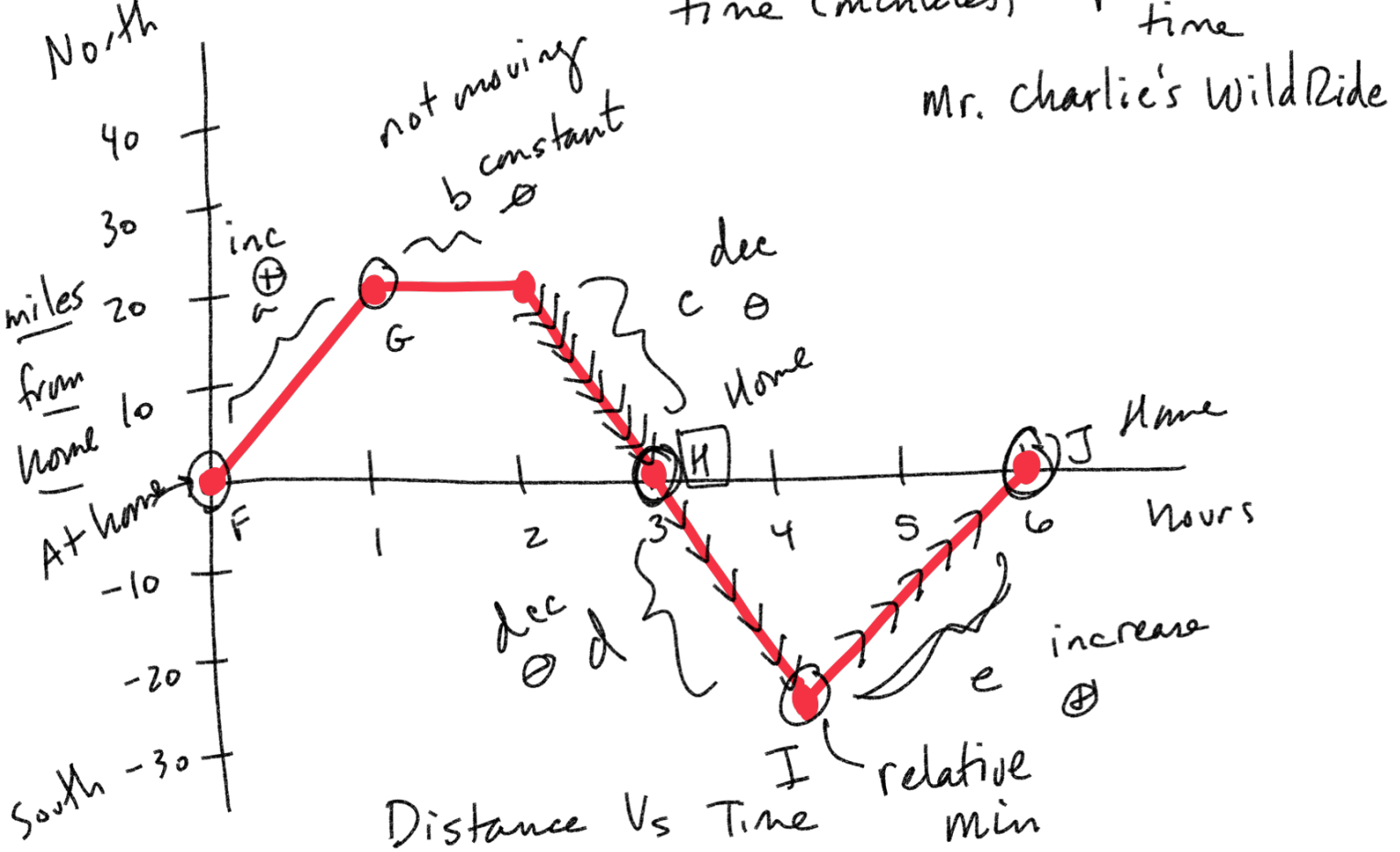
W-A1 Algebra 1 3/16





Input / Output Functions

# of sandwiches (input)	$$ (output)
1	$4
2	8
5	20
28	112

Functions → Predictable

Every one input, you must receive one — and only one — output

Not a function

Buffet

# of plates (input)	$$ (output)
0	
1	12
2	
5	
82	

Inputs can give you the same output

①

x	y
1	4
3	8
4	

yes

②

x	y
0	4
2	8
3	10

No!

X → input y → output

① (1, 3) (2, 4) (3, 5) (4, 5) Functim

x y

② (2, 7), (3, 9), (3, 12), (5, 15) not functim

x y x y x y x y

(2, 8), (3, 12), (4, 16), (6, 22)

Domain → all x values [input]

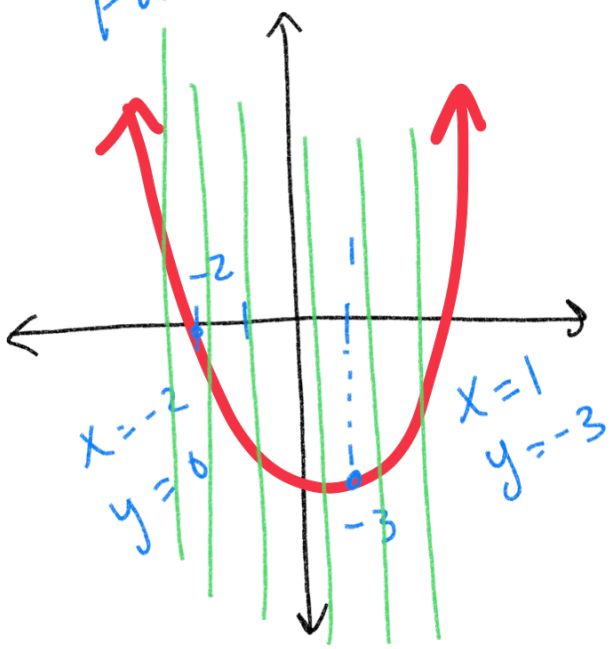
{2, 3, 4, 6}

Range → all y values [output]

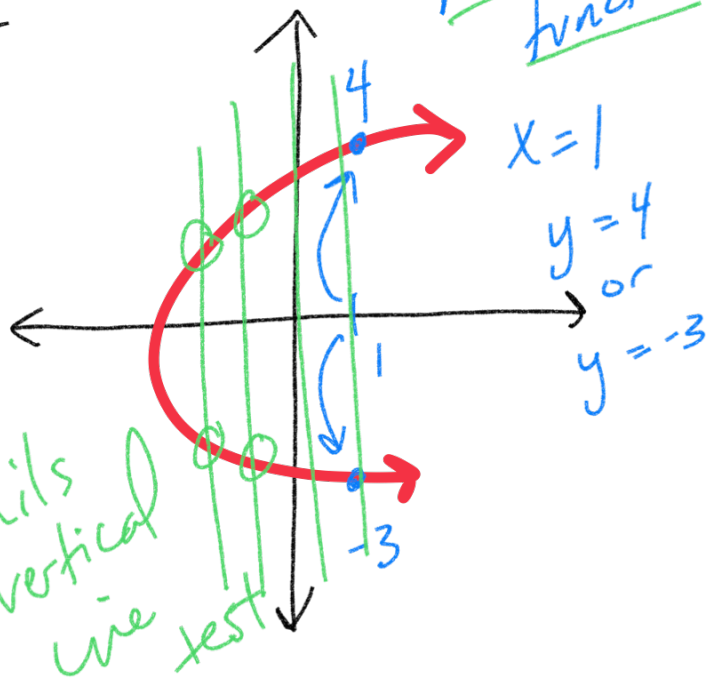
{8, 12, 16, 22}

Vertical Line Test

Functim



Not a functim



fails vertical line test