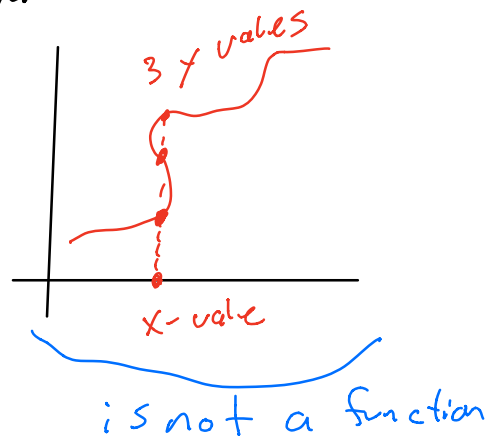
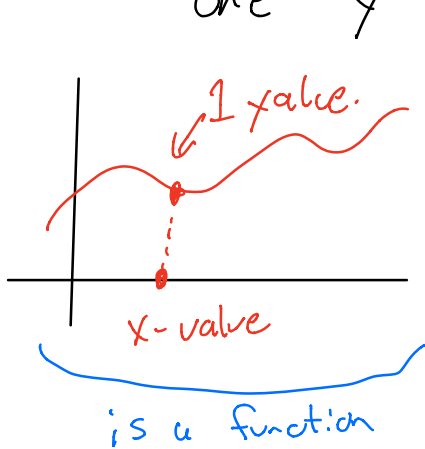


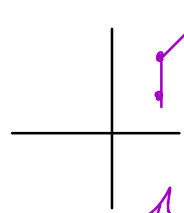
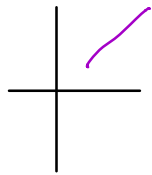
Ask Aaron VanSickle how he math sassed me with a function joke! Such a nerd!

Function - Every x value maps uniquely to one y value.



Vertical Line Test - If we draw a straight vertical line, will we cross more than once?

x	y
5	10
6	15
7	20



x	y
6	10
6	15
7	20

not a (fⁿ)

↳ function

$$4) f(x) = 10x - 8$$

"f of x"

a) f of 2

$$\begin{aligned} f(2) &= 10(2) - 8 \\ &= 20 - 8 \\ &= 12 \end{aligned}$$

$$5c) h(x) = \frac{2x}{3} + 1$$

$$x \text{ if } h(x) = -7$$

$$-7 = \frac{2x}{3} + 1$$

$$-7 - 1 = \frac{2x}{3}$$

$$-8 = \frac{2x}{3}$$

$$-8(3) = 2x$$

$$-24 = 2x$$

$$-\frac{24}{2} = x$$

$$-12 = x$$

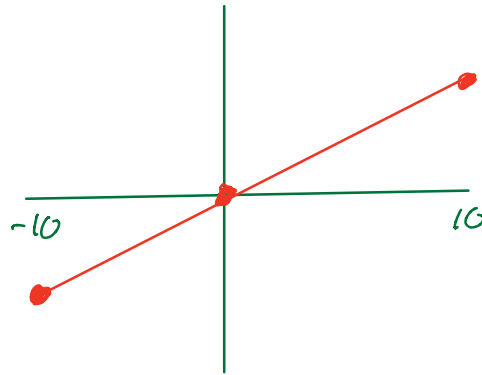
$$\begin{array}{c} \frac{2}{3} \cdot \frac{x}{1} \\ \downarrow \\ \left(\frac{2x}{3} \right) \\ \frac{2x}{3} \quad \frac{2}{3}x \\ \frac{2x}{3} \end{array}$$

$$7b) h(x) = \frac{x}{2} \text{ for } \{x \mid -10 \leq x \leq 10, x \in \mathbb{R}\}$$

Table of
Values

graph

x	y
-10	-5
0	0
10	5



$$8c) \begin{aligned} M(w) &= 20w + 200 \\ A(w) &= 200 - 20w \end{aligned} \quad \leftarrow$$

$$\begin{aligned} M(4) &= 20(4) + 200 \\ &= 280 \end{aligned}$$

$$\begin{aligned} A(4) &= 200 - 20(4) \\ &= 120 \end{aligned}$$

$$d) A(w) = 0$$

$$0 = 200 - 20w$$

$$-200 = -20w$$

$$\frac{-200}{-20} = w$$

$$10 = w$$

It will take 10 weeks to get to \$0.

$$11c) S(T) = 1192 + 2.2T$$

$$M(v) = \frac{v}{S}$$

$$a) 1236$$

$$b) 1071$$

$$c) M(v) = \frac{v}{1236}$$

at 20°

$$M(v) = \frac{v}{1071}$$

at -55°

$$d) M(v) = \frac{v}{1071}$$

$$M(1800) = \frac{1800}{1071}$$

$$\cong 1.68$$

For need points

$$M(v, T) = \frac{v}{1192 + 2.2T}$$

But, we don't deal with 2 variables in grade 10.