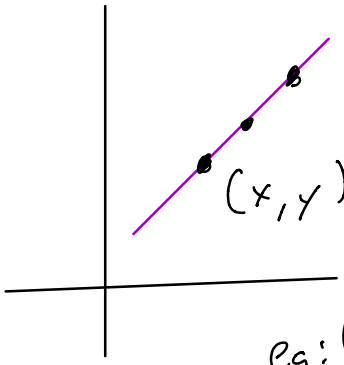
relations

x	y
3	4
4	5
5	6

↳ table of values



graph

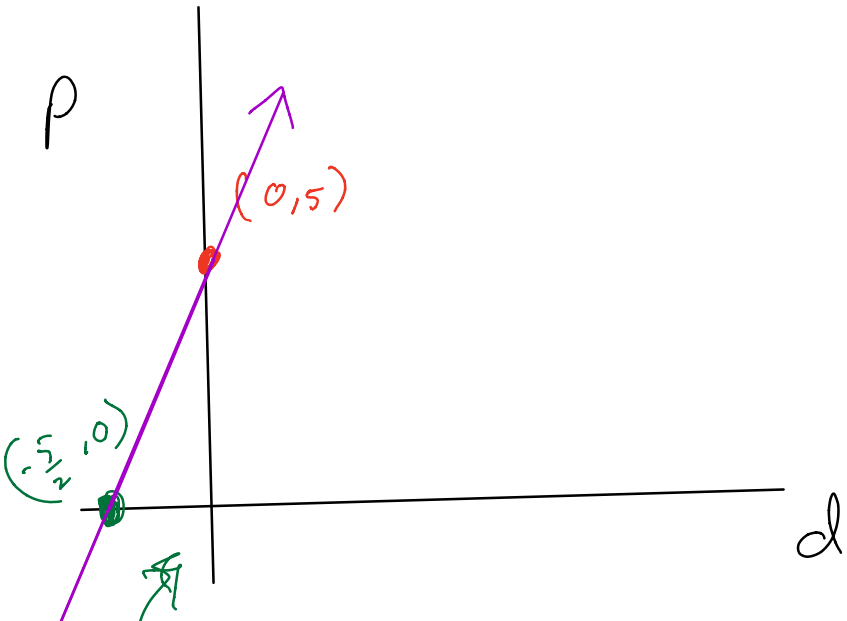
eg: (3, 4), (4, 5), (5, 6)

↳ ordered pair

equation

$y = mx + b$

$y = 2x + 1$



$y = mx + b$

$p = 2d + 5$

if $d = 0$

$p = 2(0) + 5$

$p = \quad + 5$

$(0, 5)$

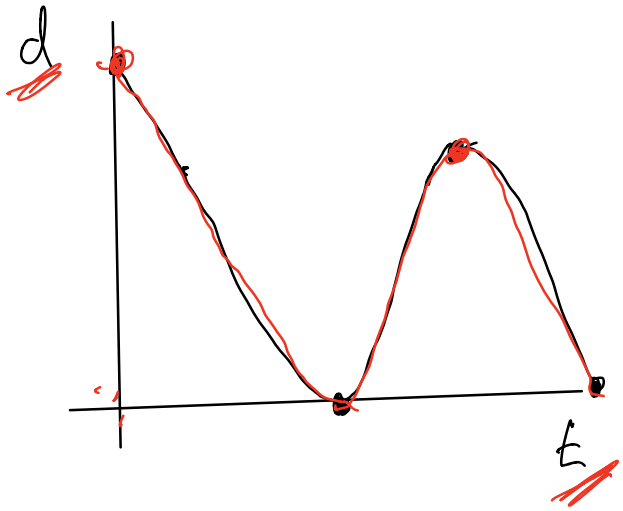
if $p = 0$

$0 = 2d + 5$

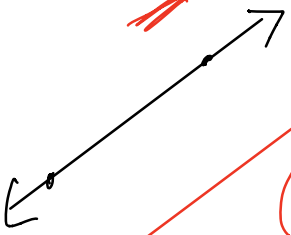
$-5 = 2d$

$-\frac{5}{2} = d$

$(-\frac{5}{2}, 0)$



linear →
the it is a line



steep.

slope

$(y = mx + b)$

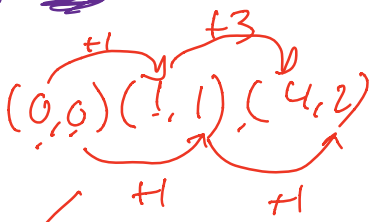
$C = 2\pi r + 0$ ✓

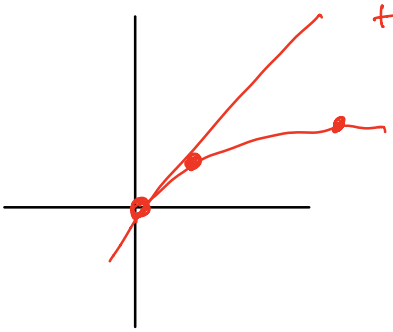
$y = mx + b$

$A = s^2$

$[y = \pi x' + 2]$ ✓

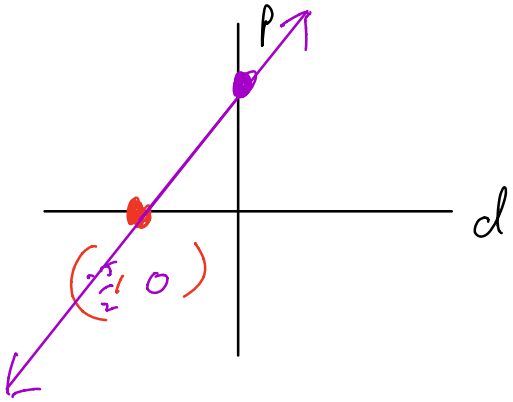
$y - 2 = \pi x$





$y = mx + b$

$p = 2d + 5$



1) What if $p = 0$

$0 = 2d + 5$

$-5 = 2d$

$\frac{-5}{2} = d$

$(\frac{-5}{2}, 0)$

(x, y)

2) What if $d = 0$

$p = 2(0) + 5$

$p = 5$ $(0, 5)$

Is it linear?

$y = mx + b$

$C = 2\pi r + 0$

$y = m \quad x + b$

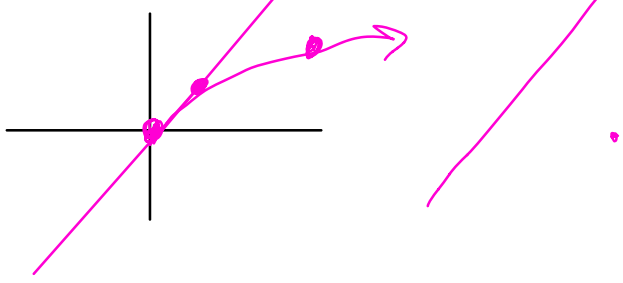
$A = \pi r^2$

$y = 3x + 2$

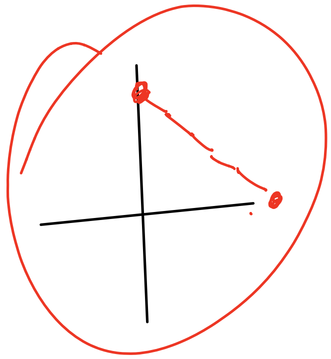
$p = -2x - 4$

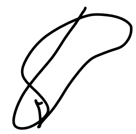
$y = x^2$

$y = \sqrt{x}$



A	t
9/1000	0
9-.8	1
9-.8(2)	2
9-.8(3)	3
⋮	⋮





Hannah is the one true god.
And, the wind beneath my wings.
I'm not worthy!!!!!!!!!!!!!!!!

$$y = mx + b$$

$$y - b = mx$$

$$y = mx + b$$

$$y = m\sqrt{x} + b$$

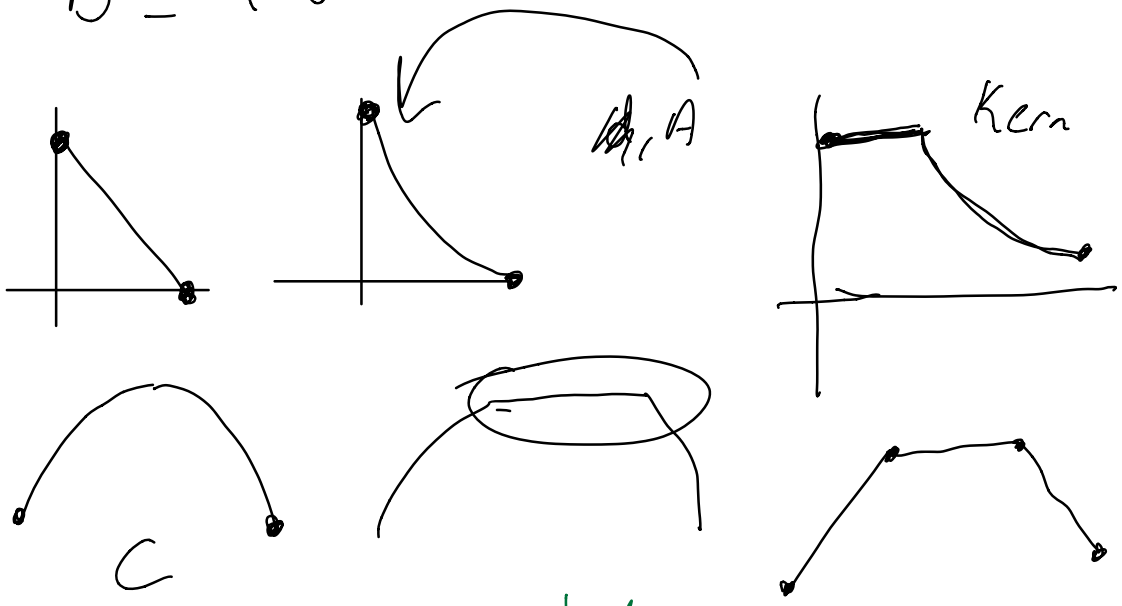
Thank you Hanah.

$D = .75d$

c) $D = .75(2)$

$D = 1.5$

d) yes. continuous.



$y = mx + b$

lines have degree = 1

$y = 3x + 2$

$y = 2x^0 + 1$ ✓

$y(-1) = 2x^0$ ✓

$y = 3x + 2$

$5 = 3(1) + 2$

$5 - 2 = 3(1)$

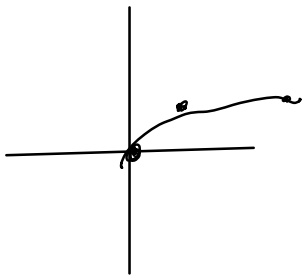
$y = 3x^2 + 2$ X

$y = \sqrt{x}$ X

$y = x^{\frac{1}{2}}$ X

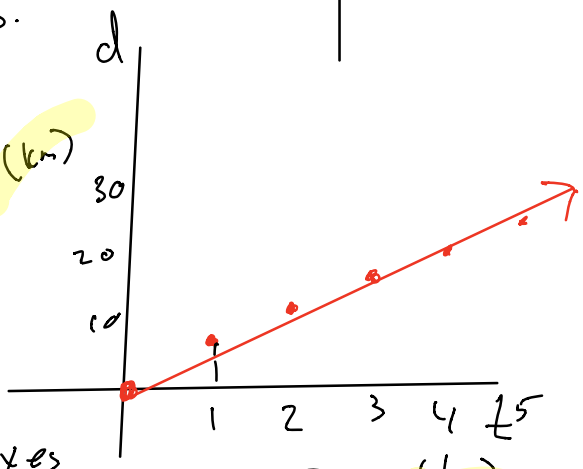
$C = 2\pi r(1) + 0$

$y = mx + b$ ✓

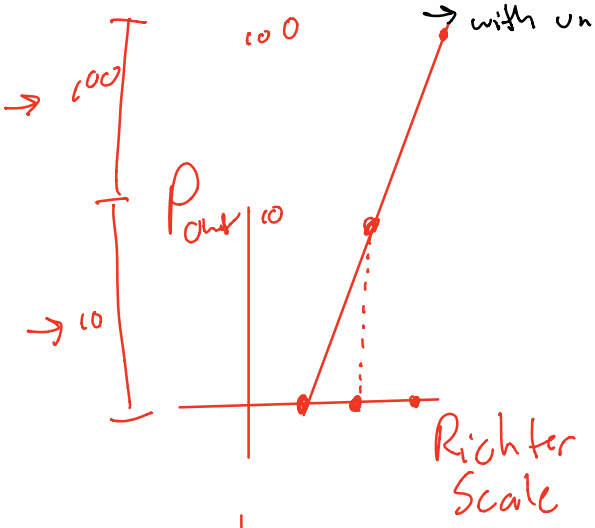


t	d
1	6
2	12
3	18
4	24
5	30

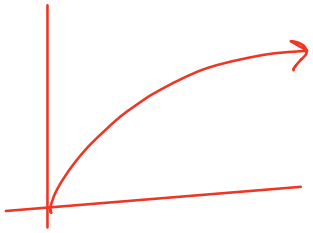
continuous.

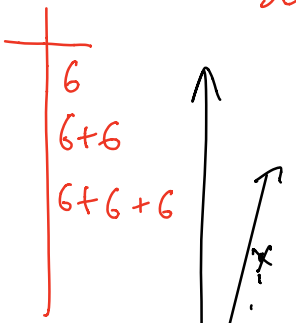


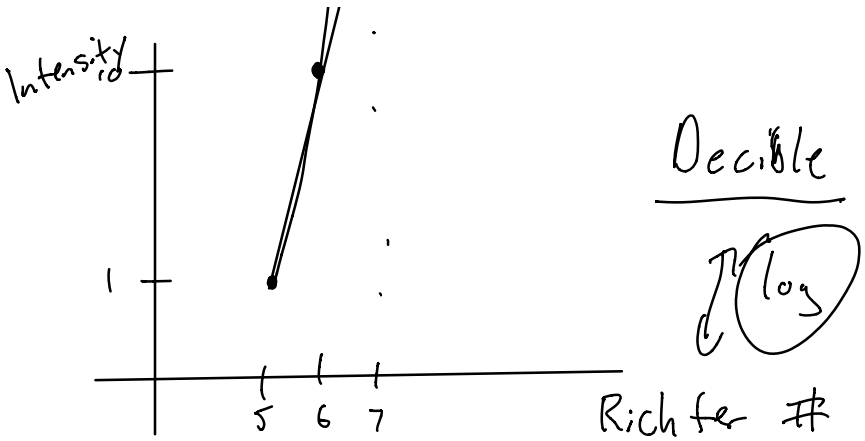
1) lable axes → with units.



3 – draw it
– scale
– label's w/ units



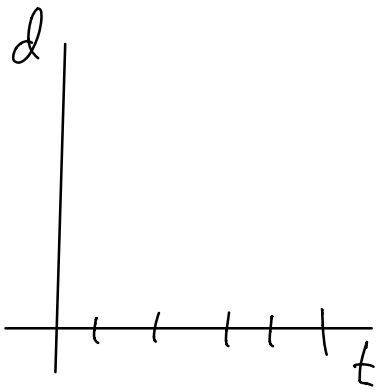




Decible

log

d (cm)	t (years)
0	0
6	1



ordered pairs

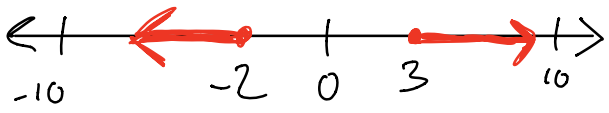
$(0,0)\ (1,6)\ (2,12)\ (3,18)\ \ldots$

1) words
   ↳ The # are between −8 and 30.
2) Interval notation (A not common)
   (← round bracket not included
   [← included
   $\cup$ ← "Big fat U" "Union" or together with
   $[-8, 30]$

3) Set notation ✡ → Most important
→ Do it Do it Do it Do it

$\{x \mid -8 \leq x \leq 30,\ x \in \mathbb{R}\}$

- $\{$: says talking about Domain + range.
- x : Domain or Range
- $\mid$: "such that"
- $-8 \leq x \leq 30$: condition
- , : also
- $\in$: curvy E means "exists within"
- $\mathbb{R}$: Real Numbers



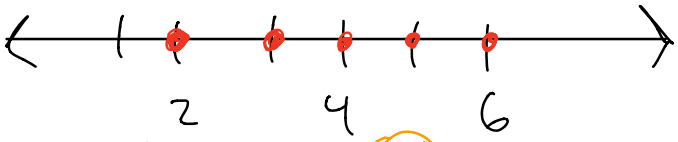
Use set notation!

Interval $(\infty, -2] \cup [3, \infty)$

$\{x \mid x \leq -2,\ x \geq 3,\ x \in \mathbb{R}\}$ ←

b) a) x is less than or equal to 0
b) $(\infty, 0]$
c) $\{x \mid x \leq 0,\ x \in \mathbb{R}\}$

- $\{\}$: define talking about domain + range.
- x : Domain or Range
- $\mid$: such that
- $x \leq 0$: conditions
- , : also
- $\in$: exists within
- $\mathbb{R}$: real numbers ✓



$\{x \mid 2 \leq x \leq 6,\ x \in \mathbb{N}\}$ not $\mathbb{R}$

2a) $\{x \mid x \in \mathbb{R}\}$ ✓

$\{y \mid y \in \mathbb{R}\}$

1b) words: x is less than zero.

interval: $(-\infty, 0]$

set: $\{x \mid x \leq 0, x \in \mathbb{R}\}$

2b) $\{x \mid 2 \leq x \leq 8, x \in \mathbb{R}\}$

$\{y \mid \quad\}$

3c) $\{x \mid x \geq -4, x \in \mathbb{R}\}$ Domain

$\{y \mid y \leq 0, y \in \mathbb{R}\}$ Range

4a) $K = 2.8m - 3.5$

if $m = 0$ then... $K =$?

if $m = 25$ then $K =$?

$\{K \mid -3.5 \leq K \leq 66.5, K \in \mathbb{R}\}$

2f) {

9

$A = 1236 - 10m$

$A = -10m + 1236$ ← grammar

a) $0 = -10m + 1236$

$-1236 = -10m$

$\frac{-1236}{-10} = m$

$123.6 = m$

≈ 2 hours.