


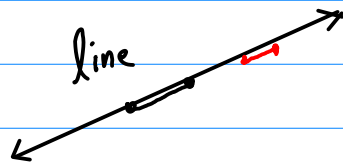
# The Dimensions: 0<sup>th</sup> through the 4<sup>th</sup>

• 0<sup>th</sup> Dimension:  point (immeasureable)

- infinitely small
- $\emptyset$  length
- $\emptyset$  width
- $\emptyset$  height/depth

• 1<sup>st</sup> Dimension:

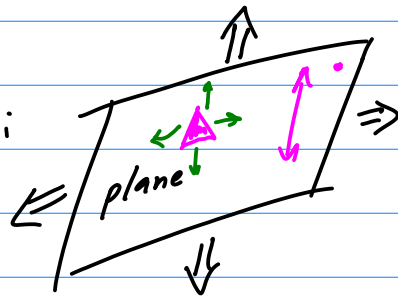
Measurement:  
LENGTH



- new property: length

• 2<sup>nd</sup> Dimension:

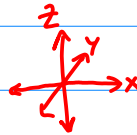
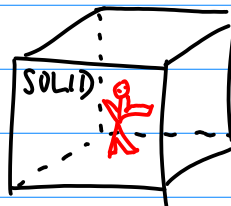
Measurement:  
AREA



- new property: width

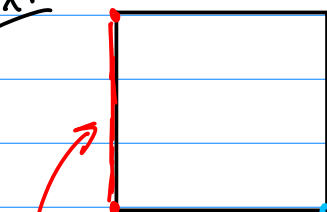
• 3<sup>rd</sup> Dimension:

Measurement:  
VOLUME or SPACE



- new property: height

Ex:



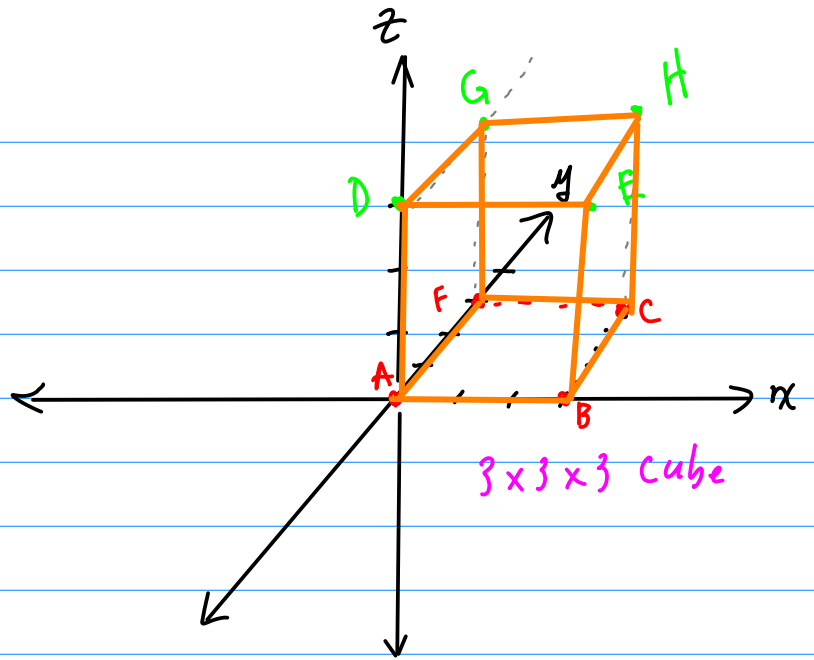
Segment:  
1<sup>st</sup> dimension

pt - 0<sup>th</sup> dimension

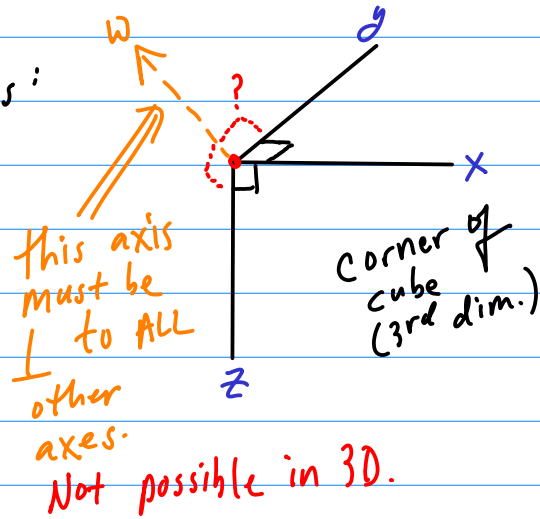
Square: a 2-dimensional figure.

Ex:

- |   |           |   |   |
|---|-----------|---|---|
|   | x         | y | z |
| A | (0, 0, 0) |   |   |
| B | (3, 0, 0) |   |   |
| C | (3, 3, 0) |   |   |
| D | (0, 0, 3) |   |   |
| E | (3, 0, 3) |   |   |
| F | (0, 3, 0) |   |   |
| G | (0, 3, 3) |   |   |
| H | (3, 3, 3) |   |   |



4th Dimensions:



dimension

example figure

0<sup>th</sup>

pt

1<sup>st</sup>

line (segment)

2<sup>nd</sup>

shadow → square, polygon, ○

3<sup>rd</sup>

cube

4<sup>th</sup>

hypercube

