1. Mean, meura	n, mode, and	Tallge						
Definition of <mark>Mea</mark>	<mark>in-</mark> the sum o	f all value	s divided l	by the numb	oer of values	(the avera	ge).	
Input: 9,7,4,3,2,2	2,1,3,3,6,8 (1	1 number	s)					
$E_{\mathbf{Y}} \cdot (0 + 7 + 4 + 2)$		2 - 6 - 9)	. 11					
LX.(9+/+4+3-	727271737	-3-0-0)	II					
Mean : <mark>4.36</mark>								
Definition of <mark>Mec</mark>	lian : The mi	ddle numł	per, or the	average of t	he two midd	lle number	s, when so	rted.
Input: 912783	3.4							
	, ,							
Sorted Input : 1,2	2,3 <mark>,4</mark> ,7,8,9							
Median : <mark>4</mark>								
Input: 9,21,2,5								
Sorted Input: 2 <mark>,5</mark>	<mark>,9,</mark> 21							
Median: $(5 \pm 0)$	/2 - 7							
	2 - 7							
Definition of <mark>Moc</mark>	le: The numb	er that sh	ows up the	e most.				
Input: 9,7,4 <mark>,3</mark> ,2,2	2,1 <mark>,3,3,</mark> 6,8							
The numbe <mark>r 3 sh</mark>	ows up the m	aximum r	umber of	times.				
Definition of <mark>Ran</mark>	<mark>ge</mark> : The diffe	rence betv	veen the la	argest and t	he smallest v	alue.		
Input: 9,7,4,3,2,2	2 <mark>,1</mark> ,3,3,6,8, <mark>11</mark>							





## 4. Basic probability and compound events.

a. Definition of Probability: How likely something is to happen. It's a number between 0 and 1.
0 means impossible, and 1 means certain.

Probability = (Number of Favorable Outcomes) ÷ (Total Number of Outcomes)

## Example:

Rolling a <mark>5</mark> on a <mark>6-sided dice.</mark>

Number of favorable outcomes = 1, Total number of outcomes = 6

Probability of rolling 5 = P(5) = 1/6

Flipping a heads on a coin = P(Heads) = 1/2

b. Definition of Compound events: Has two or more parts

i. Compound AND event : Both things must happen.

To Do : Multiply the probabilities.

Example: Flip a coin and roll a dice. What is the chance of getting Heads and a 5?

 $P(\text{Heads AND 5}) = (1/2) \times (1/6) = (1/12)$ 

ii. Compound OR event: At least one thing must happen.

To Do : Add the probabilities.

