

Chapter 1 Review

1) Conversion -

- Be able to convert between any units
- Know
 - > milli- (1/1000)
 - > kilo- (1000)
 - > centi- (1/100)

2) Dimensional Analysis

- Use to determine validity of EQ's
- Need to know
 - $d = [L]$, $t = [T]$, $m = [m]$

3) Vectors

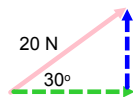
- magnitude (size, #, amt) + direction
- examples: velocity, force, displacement

4) Trig ID's.....know them!

$$\sin\theta = \text{opp/adj}$$

$$\cos\theta = \text{adj/hyp}$$

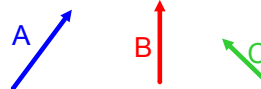
$$\tan\theta = \text{opp/adj}$$



*****note- components must be LESS than resultant*****

5) Graphically Adding Vectors = Head to Tail

- 0° is ALWAYS to the right
- - = go opposite way
- R = start to finish



Practice

20 N @ 25°

40 N @ 100°

30 N @ 290°

Vector	x	y
1		
2		
3		
R		

6) Analytical adding of Vectors (Trig method)

1. Components
2. Sum x and y
3. $R^2 = x^2 + y^2$
4. Sketch components
5. use tan function to find angle