

# WEIGHT OF THE WORLD

The REST OF THE STORY!

The North/South Net Force & East/West Net Force

Purpose: The calculate the Net Forces in the +x & -x directionzero!

and the +y & -y direction and show that they are both

only now use the Sin B times the Sin & Cos of the angle ( $\alpha$ )

made with the +x axis counterclockwise.

To find  $\alpha$  just drop a plumb bob from each string to the floor counterclockwise

and figure the angle with the +x axis (east)

Angles range from 0 degrees to 360 degrees.

from other  
side

from other  
side

Tension in

Data Table:

Angle B

Sin B

Cable

Angle  $\alpha$

Sin  $\alpha$

Cos  $\alpha$

Cable #

1

2

3

4

5

6

7

8

9

10

11

12

$\Sigma$  's of Sin  $\alpha$  and Cos  $\alpha$

Conclusions:

Summary: