

LIST OF FORCES

F_A : APPLIED FORCE

F_p : BOUyant FORCE ($F_p = \rho V g$)

F_g OR W : WEIGHT FORCE FROM GRAVITY ($W = mg$)

F_E : FORCE FROM ELECTRIC FIELD ($F_E = E q$)
($k \frac{q_1 q_2}{d^2}$)

F_T OR T : TENSION FORCE FROM STRING

F_B : FORCE FROM MAGNETIC FIELD ($F_B = q v B \sin \theta$)

F_k : FORCE FROM SPRING ($F_k = -kx$)

F_S : FORCE OF FRICTION ($F_S = \mu F_N$)

F_N : NORMAL FORCE FORCE FROM SURFACE

FREE BODY DIAGRAMS (FBD)

DIAGRAM OF FORCES ACTING ON AN OBJECT IN A SITUATION

- 1) LABEL FORCES OF FORCES
- 2) SHOW DIRECTION WITH AN ARROW

* LOOK AT MONKEY SHEET.

EQUILIBRIUM PROBLEMS

* ALL FORCES CANCEL OUT

UP = DOWN
LEFT = RIGHT

HOW CAN WE TELL IF ALL FORCES CANCEL OUT?

1) OBJECT NOT ACCELERATING

→ NOT MOVING
→ CONSTANT VELOCITY

KEY WORDS

" AT REST " " UNIFORM MOTION "
" MOVING AT CONSTANT VELOCITY "
" STATIC "
" IN EQUILIBRIUM "
" NOT ACCELERATING "