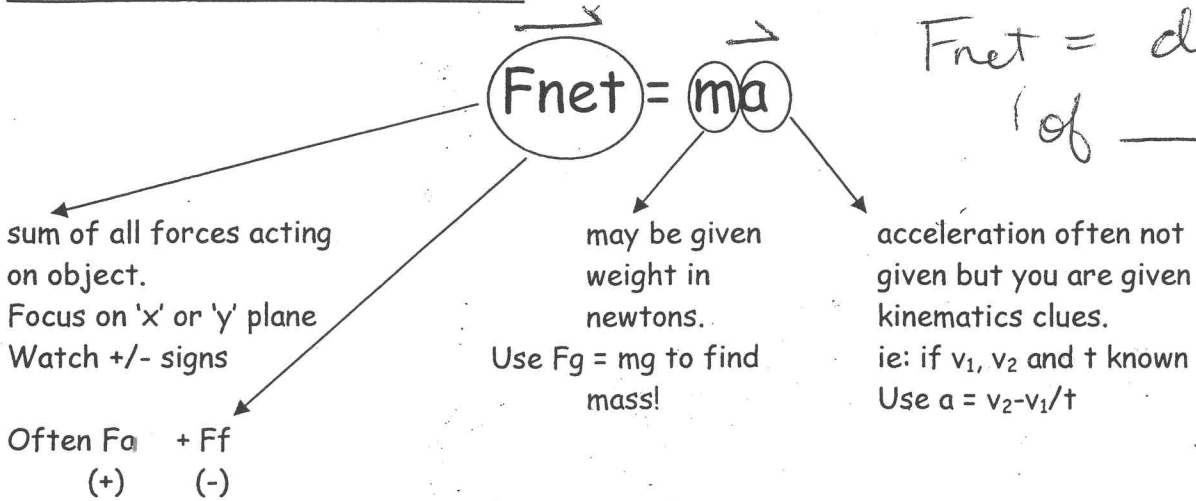


3.5 - Newton's 3 Laws + Kinematics

→ direction of
 $F_{net} =$ direction
of _____



You could have
 $\mu = 0.30$
And now you calculate
 F_f
 $F_f = \mu F_n$

$F_n = F_g$ on
level surface

Acceleration is the Key!!!

Acceleration (a) is the only entity present in Newton's 2nd law ($F_{net} = ma$) and the kinematics formulas (ie: $d = v_1t + \frac{1}{2}at^2$, $v_2 = v_1 + at$, etc..)

- Hints
- ① Always draw a FBD
 - ② Set ⊕ direction (usually direction of motion).
 - ③ Expand F_{net} ie F_a + F_f
 - ④ $\mu_k = \frac{F_k}{F_N}$
 $F_N \Rightarrow$ if on horizontal surface ie: $F_N = F_g$
 - ⑤ skidding + coasting \Rightarrow NO F_a . There is F_f !

