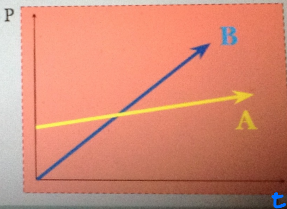


Warm-up:

LOOK AT THE P-t GRAPH BELOW AND ANSWER THE QUESTIONS.

- WHICH IS MOVING FASTER?
B → Steeper slope
- WHICH STARTS AHEAD? DEFINE "AHEAD"
A → greater position @ $t=0$
- WHAT DOES THE INTERSECTION MEAN?
B passes A



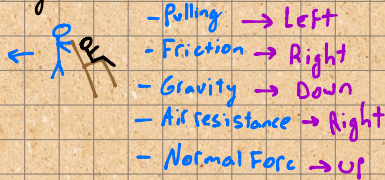
Force as Defined by Physicists:

- Aristotle: anything that causes "unnatural" motion
- Newton: a push or a pull on an object
↳ Force is a Vector!

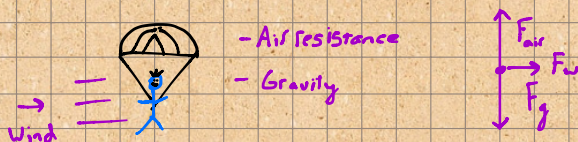
★ If more than one force is acting on an object it is important to know the vector quantities [i.e. magnitude & direction]

↳ ex: List all of the forces in the following

↳ pulling a chair

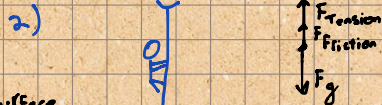
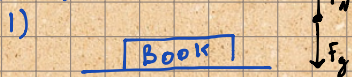


• Free Body Diagrams: Uses vectors to illustrate all forces acting on an object

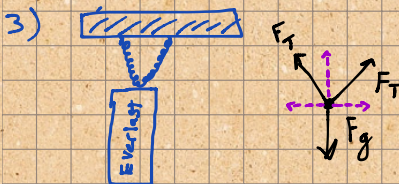


• Net Force: result/sum of all forces in all directions

Examples:



• Normal Force: Reactionary force perpendicular to surface



★ FBD's must exclude other objects & forces exerted by the body