

4-05

F = ma problems

Solving $F=ma$

- Force is a vector and so is acceleration
- Look for questions that say: How big is the force? How much force is required?....these are asking for magnitude of force and not the direction
- Three variables, you need two knowns
- You can figure what happens in the x direction separately from the y
- On inclines, make x direction parallel to incline and y perpendicular to plane

F = ma example

- Easy: How much acceleration is there when a 300 N force is exerted on a 600 g box?
- Hard: What is the acceleration of a 600 g weight on a frictionless table tilted 30 degrees above horizontal? What is the normal force including direction?