✳ Solidworks drawing due FRIDAY 3|5

LUNAR LANDER

→ What are the different forces that act on a spacecraft?

→ How do the <u>size</u> and <u>direction</u> of forces contribute to an object's acceleration?

→ How do an object's <u>current velocity</u> and <u>acceleration</u> allow you to predict the motion of the spacecraft?

→ How can you understand the use of <u>vectors</u> to show acceleration, velocity and

Free body diagram ⎰ → FORCE

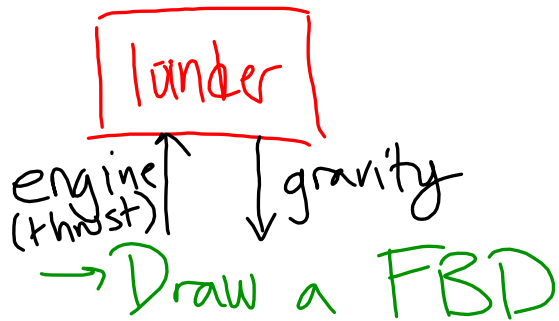# Lunar lander questions:

① | lander |

        ↓ gravity

· in the air
· no thrust
· Starts with
   no motion

→ Draw a FBD

→ Predict how the lander will move

The lander will accelerate in the direction of overall force (gravity)

②

lander

engine (thrust) ↑   ↓ gravity

→ Draw a FBD

- moving downward with a constant velocity (no acceleration)

NO. (no acceleration)

IT HAD A VELOCITY ALREADY { → Is there an overall force? If not, what is making the lander move?