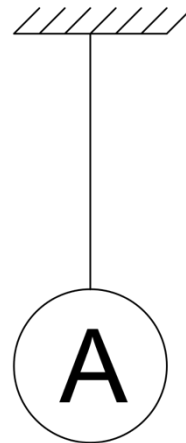


1. List the three branches of mechanics
2. In your own words, explain the difference between statics and dynamics
3. There are four basic quantities used in mechanics. List the standard unit that is used for each quantity in both the International System of Units (SI) and the U.S. Customary System of Units (FPS)

Quantity	SI Unit	SI Abbreviation	US Unit	Abbreviation
Length				
Mass				
Weight				
Time	Second	s	Second	s

4. In your own words, explain the difference between a particle and a rigid body.
5. An object has a mass of 10,000 grams. Determine its weight on Earth,
  - a. in standard SI units
  - b. in standard FPS units
6. Object A is hanging from the ceiling of a building on Earth. If it weighs 500 pounds, determine the mass of the object,
  - a. in standard FPS units
  - b. in standard SI units



7. In your own words, describe what a Newton is equal to
8. A force of 100 kilonewtons (kN) is applied to an object. Express the force in terms of
  - a. Newtons
  - b. Giganewtons (GN)
9. A vehicle was able to travel a distance of 26 miles in 2 hours. Calculate its velocity in terms of
  - a. ft/s
  - b. m/s