

Questions

1. In the CGS system of units force should be in dynes and work should be in ergs (dyne-cm). You were able to use the non-standard units of gwt for force and gwt-cm for work, because you were merely comparing one value of force to another or one value of work to another. In most other calculations you would need to use the standard units. Calculate the weight of a 300 g mass in dynes. (Use the formula relating mass and weight.)
2. In the SI system of units length is in meters, mass is in grams, and time is in seconds. In that system force should be in N (newtons). Calculate the weight of the 300 g mass in newtons.
3. You studied two types of simple machines involving force and linear motion. There are other simple machines of that type and also some simple machines involving rotation and torque. Name a few additional simple machines. Remember that by definition a simple machine cannot have a power source such as an electric motor or a gasoline engine. (However, some large machines that are not simple may have a sub-assembly that can be regarded as a simple machine.)