

# Find the force of gravity between two objects

## 8 Kuy

Your job is to find the gravitational force between two spherical objects (obj1 , obj2).

### Input:

Two arrays are given:

- arr\_val (value array), consists of 3 elements
  - 1st element : mass of obj 1
  - 2nd element : mass of obj 2
  - 3rd element : distance between their centers
- arr\_unit (unit array), consists of 3 elements
  - 1st element : unit for mass of obj 1
  - 1st element : unit for mass of obj 1
  - 1st element : unit for mass of obj 1

Mass units are :

- kilogram (kg)
- gram (g)
- milligram (mg)
- micrograms ( $\mu\text{g}$ )
- pound (lb)

Distance units are :

- meter (m)
- centimeter (cm)
- millimeter (mm)
- micrometer ( $\mu\text{m}$ )
- feet (ft)

### Note:

value of  $G = 6.67 \times 10^{-11} \text{ N}\cdot\text{kg}^{-2}\cdot\text{m}^2$

1 ft = 0.3048 m

1 lb = 0.453592 kg

return value must be Newton for force (obviously)

μ copy this from here to use it in your solution