**5. Problem Statement**

• Write a function that to calculate BMI (Body Mass Index):

• BMI for a person is defined as their body mass divided by the square of their height

• The weight is in kilograms and the height in meters or

• (The weight can be in pounds and the height in inches)\* 703

**Solution : Function if weight is in KG and height in Meters**

bmi1<- function(x,y){

bi <- x/y^2

if(bi>40){ print("obese Class III")} else if(bi>=35&bi<=40){ print("obese Class II")

}else if(bi>=30&bi<35){print("Obese Class I")

}else if(bi>25&bi<30){print("Overweight")

}else if(bi>=18.5&bi<=25){print("Normal")

}else if(bi>=16&bi<18.5){print("severely underweight")

}else{print ("very severely underweight ")}}

**Function if weight is in pounds and height in inches**

bmi1<- function(x,y){

bi <- (x/y^2)\*703

if(bi>40){ print("obese Class III")} else if(bi>=35&bi<=40){ print("obese Class II")

}else if(bi>=30&bi<35){print("Obese Class I")

}else if(bi>25&bi<30){print("Overweight")

}else if(bi>=18.5&bi<=25){print("Normal")

}else if(bi>=16&bi<18.5){print("severely underweight")

}else{print ("very severely underweight ")}}