```
sample_mean=0


#Function to calculate sample mean
pos_mean<-function(n,sample_mean)
{
  x<-((0+(n*sample_mean))/((1/1000000)+(n/1)))
  return(x)
}
#function to calculate sample variance
pos_var<-function(n)
{
  y<-1/((1/(1000000))+(n/1))
  return(y)
}

X<-NULL
for(i in 1:100)
{
  #generating a number normally distributed
  X[i]<-rnorm(1,10,1)

  #calculating the posterior mean by having a parameter of sample mean.
  p_mean<-pos_mean(i,mean(X))

  #calculating the posterior variance.
  p_var<-pos_var(i)

  #generating a sequence of numbers for the plot
  range=seq(1,100,by=1)

  #calculating the normal density
  n=dnorm(range,p_mean,p_var)

  #plotting the values.
  plot(range,n,type = 'l')

}
```