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## Tugas Teknik Simulasi

### ➤ Syntak Multiplicative

```
multiplicative_RNG<-function(a,z0,m,n){  
  
  xj<-matrix(NA,n,3)  
  
  colnames(xj)<-c("aZ", "Xj", "Uj")  
  
  for (j in 1:n)  
  {  
  
    xj[j,1]<-(a*z0)  
  
    xj[j,2]<-xj[j,1]%%m  
  
    xj[j,3]<-xj[j,2]/m  
  
    z0<-xj[j,2]  
  
  }  
  
  hist(xj[,3])  
  
  View(xj)  
  
}  
  
multiplicative_RNG(35,11123, 138,100)
```

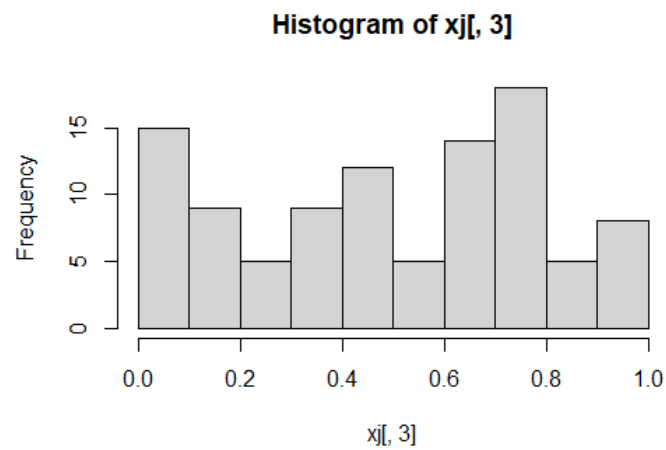
### ➤ Console Multiplicative



The screenshot shows an R console window with the following code and output:

```
R 4.1.3 ~ /  
> multiplicative_RNG<-function(a,z0,m,n){  
+   xj<-matrix(NA,n,3)  
+   colnames(xj)<-c("aZ", "Xj", "Uj")  
+   for (j in 1:n)  
+   {  
+     xj[j,1]<-(a*z0)  
+     xj[j,2]<-xj[j,1]%%m  
+     xj[j,3]<-xj[j,2]/m  
+     z0<-xj[j,2]  
+   }  
+   hist(xj[,3])  
+   View(xj)  
+ }  
> multiplicative_RNG(35,11123, 138,100)
```

➤ **Plot**



**Bernouli**

➤ **Syntak Bernouli**

```
Bernouli_1<-function(n,p){  
  i<-n  
  p<-p  
  X<-runif(i)  
  Y<-NULL  
  for(z in 1:i) ifelse(X[z]<=p, Y[z]<-1,Y[z]<-0)  
  (tabel<-table(Y)/length(Y))  
}  
  
#Angka 5=5  
Bernouli_1(5, 0.65)  
  
#Angka 7=5  
Bernouli_1(7, 0.65)  
  
#Angka 11=5  
Bernouli_1(11, 0.65)  
  
#Angka 17=4  
Bernouli_1(17, 0.65)
```

#Angka 37=5

Bernouli\_1(37, 0.65)

#Angka 43=4

Bernouli\_1(43, 0.65)

#Angka 53=5

Bernouli\_1(53, 0.65)

#Angka 61=4

Bernouli\_1(61, 0.65)

#Angka 65=4

Bernouli\_1(65, 0.65)

#Angka 67=4

Bernouli\_1(67, 0.65)

#Angka 79=5

Bernouli\_1(79, 0.65)

#Angka 83=4

Bernouli\_1(83, 0.65)

#Angka 89=5

Bernouli\_1(89, 0.65)

#Angka 91=5

Bernouli\_1(91, 0.65)

#Angka 97=5

Bernouli\_1(97, 0.65)

#Angka 103=4

Bernouli\_1(103, 0.65)

#Angka 107=5

Bernouli\_1(107, 0.65)

#Angka 109=5

Bernouli\_1(137, 0.65)

## ➤ Console Bernouli

