

# Atv10

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## Lista 10

```
#Função interna do R:  
sample(x=c(0,1), size=5,replace=TRUE,prob=c(0.5,0.5))
```

```
## [1] 0 0 1 1 1
```

```
#Função programada em R:  
rdiscreta <- function(k,x,px){  
  
  #Declare variaveis:  
  Fx<-numeric(length(x))  
  n<-numeric(k)  
  
  #Calcular Fx:  
  Fx[1] <- px[1]  
  for(i in 2:length(x)){  
    Fx[i] <- Fx[i-1] + px[i]  
  }  
  
  #Gerar os numeros:  
  for (i in 1:k) {  
  
    #Gerar u~unif(0,1):  
    u <- runif(1)  
  
    #Achar o n[i] associado:  
    j <- 1  
    while(u>Fx[j]){  
      j<-j+1  
    }  
    n[i]<-x[j]  
  }  
  return(n)  
}  
x <- c(0,1)  
px <- c(1/2 ,1/2)  
  
set.seed(1000)  
amostra <- rdiscreta(5,x,px)  
table(amostra)
```

```
## amostra  
## 0 1  
## 2 3
```