**Monte Carlo Confirmation for 3.10.4 in R**

*Fy <- function(y) {y^2}*

*X <- function (U) {sqrt(U)}*

*# Desired number of samples:*

*N = 1000*

*# position counter*

*i = 0*

*# Contains .6 Counter*

*x = 0*

*while( i < N )*

*{*

*U = runif(5)*

*y = X(U)*

*y = sort(y)*

*if ((y[1]<.6) & (y[5] > .6)){*

*x = x+1*

*}*

*i = i+1*

*}*

*Probability = x / N*

I ran this 1000 sample simulation about 5 times, below are my outputs and they confirm my answer in 3.10.4

Output:

1. Probability = .873
2. Probability = .893
3. Probability = .885
4. Probability = .890
5. Probability = .895

Avg. of these 5 probabilities = .8872

**Monte Carlo Confirmation for 3.10.4 in R**

*Fy <- function(y) {1 - exp(-y)}*

*X <- function(U){-log(1-U)}*

*# Desired number of samples:*

*N = 1000*

*# position counter*

*i = 0*

*# Contains .6 Counter*

*x = 0*

*while( i < N )*

*{*

*U = runif(12)*

*y = X(U)*

*y = sort(y)*

*if ((y[1]<.2)){*

*x = x+1*

*}*

*i = i+1*

*}*

*Probability = x / N*

I ran this 1000 sample simulation about 5 times, below are my outputs and they confirm my answer in 3.10.6

Output:

1. Probability = .905
2. Probability = .914
3. Probability = .917
4. Probability = .908
5. Probability = .907

As you can see all the times, the probability of P[Y\_1 <.2] >= 90% with n = 12.