**INPUT :**

#define your dataset

x <- c(65.7,15.6,17.6,14,22.2,13.3,34.1,6.2,10.6,130)

y <- c(50.84,54.10,57.36,60.62,63.88,67.13,70.39,73.65,76.91,80.17)

#calculate sampling probabilities

total\_size <- length(x)

proportions <- x/sum(y)

#setting seed for reproducibility

set.seed(123)

#perform pps sampling without replacement

sample\_indices <- sample(1:total\_size, size=5, prob= proportions,replace= FALSE)

#retrive the selected units

selected\_x <- x[sample\_indices]

selected\_y <- y[sample\_indices]

#print the selected units

selected\_x

selected\_y

**OUTPUT :**

> selected\_x

[1] 130.0 14.0 34.1 13.3 10.6

> selected\_y

[1] 80.17 60.62 70.39 67.13 76.91