**INPUT:**

#Generate a sample dataset

set.seed(456)

sample\_data <- rgamma(500,shape=2,rate=0.5)

#Calculate the 7th order statistic

seventh\_order\_statistic <- sort(sample\_data)[7]

#Generate quantiles for the 7th order statistic

quantiles <- qgamma(ppoints(500),shape=2,rate=0.5)

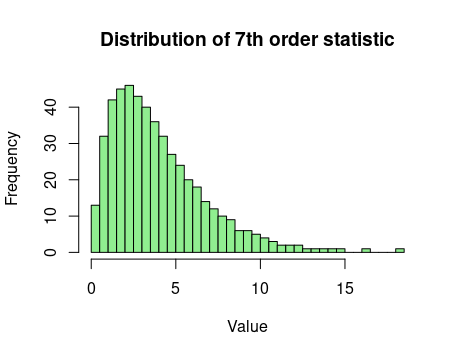
#Plot the distribution of the 7th order statistic

hist(quantiles,breaks=30,col="lightgreen",main="Distribution of 7th order statistic",

xlab="Value")

abline(v=seventh\_order\_statistic,col="blue",lwd=2)

**OUTPUT:**

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