1. A recent national study showed that approximately 44.7% of college students have used Wikipedia as a source in at least one of their term papers. Let X equal the number of students in a random sample of

size n = 31 who have used Wikipedia as a source.

Perform the below functions

a. Find the probability that X is equal to 17

b. Find the probability that X is at most 13

c. Find the probability that X is bigger than 11.

d. Find the probability that X is at least 15.

e. Find the probability that X is between 16 and 19, inclusive

How is X DISTRIBUTED?

X~**binom** (size=31, probability=0.447)

x ~ binom(size = 31, probability = 0.447)

#Find the probability x=17

dbinom(17,size=31,prob=0.447)

[1] 0.07532248

b. Find the probability that X is at most 13 ?

pbinom(13, size=31,prob=0.447)

[1] 0.451357

c. Find the probability that X is bigger than 11. ?

pbinom(11, size=31,prob=0.447, lower.tail = FALSE)

[1] 0.8020339

d. Find the probability that X is at least 15. ?

pbinom(14, size=31,prob=0.447, lower.tail=FALSE)

[1] 0.406024

e. Find the probability that X is between 16 and 19, inclusive?

sum(**dbinom**(16**:**19, size=31,prob=0.447,))

[1] 0.2544758

diff(**pbinom**(**c**(19,15),size=31,prob=0.447, lower.tail = FALSE))

[1] 0.2544758

title: "session1 assignment 3 probabiity"

author: "varatharajan"

date: "June 21, 2018"

output: word_document

```{r}

x~binom(size=31,prob=0.447)

#Find the probability x=17

dbinom(17,size=31,prob=0.447)

pbinom(13, size=31,prob=0.447)

pbinom(11, size=31,prob=0.447, lower.tail = FALSE)

pbinom(14, size=31,prob=0.447, lower.tail=FALSE)

sum(dbinom(16:19, size=31,prob=0.447,))

diff(pbinom(c(19,15),size=31,prob=0.447, lower.tail = FALSE))
```

x ~ binom(size = 31, prob = 0.447)

[1] 0.07532248

[1] 0.451357

[1] 0.8020339

[1] 0.406024

[1] 0.2544758

[1] 0.2544758

```

R Markdown

This is an R Markdown document. Markdown is a simple formatting syntax for authoring HTML, PDF, and MS Word documents. For more details on using R Markdown see http://rmarkdown.rstudio.com.

When you click the Knit button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

Note that the echo = FALSE parameter was added to the code chunk to prevent printing of the R code that generated the plot.
```