

1

answered
out of
question

Suppose that $p = 0.512$ is the proportion of one-child families in which the child is a boy. For a random sample of $n = 50$ one-child families, estimate the probability that there will be 20 or greater families with one boy using suitable approximation?

Select one:

- ☐ 0.59818
- ☒ 0.95818
- ☐ 0.83818
- ☐ 0.88919
- ☐ 0.65828

Question 1

not yet answered
marked out of
1.00

Flag question

What is the R command used to create database in R?

Select one:

- ☒ data.frame()
- ☐ data()
- ☐ database()
- ☐ data.base()

Suppose that an airline runs a commuter flight that holds 40 people. The airline knows that the weights of passenger plus luggage for typical customers on this flight has a mean of 210 pounds and a standard deviation of 8 pounds. What is the probability that the sample mean weight of passenger plus luggage is less than 208 pounds for a random sample of 40 customers?

Select one:

- ☐ 0.05576
- ☐ 0.35075
- ☒ 0.05705
- ☐ 0.95705
- ☐ 0.07505

What is the output of the following function?

```
X<-c(2,5,6,3,3,2,1,1,0,9,1,0,5,4,9,4,9,9)
```

```
get.f1<-function(y){  
  u1<-table(X)  
  names(u1[u1==min(u1)])  
}
```

get.f1(X)

Select one:

- ☐ 2
- ☐ 1
- ☒ 6
- ☐ 9
- ☐ 3

Question 1

Not yet answered
Marked out of
3.00

Flag question

Suppose that $p = 0.512$ is the proportion of one-child families in which the child is a boy. For a random sample of $n = 50$ one-child families, estimate the probability that there will be 20 or greater families with one boy using suitable approximation?

Select one:

- ☐ 0.59818
- ☒ 0.95818
- ☐ 0.83818
- ☐ 0.88919
- ☐ 0.65828

Next page

NUEXAM

Sri Lanka Institute of Information Technology

Suppose the yearly rainfall for a city in southern California follows a normal distribution, with a mean of 18 inches and a standard deviation of 6 inches. For a randomly selected year, what is the probability that rainfall will be less than 12 inches?

Select one:

- ☐ 0.90456
- ☒ 0.09176
- ☐ 0.29176
- ☐ 0.87176
- ☐ 0.90176

Suppose that $p = 0.512$ is the proportion of one-child families in which the child is a boy. For a random sample of $n = 50$ one-child families, estimate the probability that no of families will be in between 15 and 24 with one boy using suitable approximation? [$P(15 < X < 24)$]

Select one:

- ☐ 0.82547
- ☒ 0.27548
- ☐ 0.72548
- ☐ 0.77548
- ☐ 0.57248

Suppose that the amount of money that students at a college spend on textbooks this semester have a normal distribution with mean \$360 and standard deviation \$120. What is the probability that a randomly selected student spends between \$250 and \$480 on textbooks this semester?

Select one:

- ☒ 0.66255
- ☐ 0.22255
- ☐ 0.66388
- ☐ 0.55266
- ☐ 0.88255

What is the R command used to create database in R?

Select one:

- ☒ data.frame()
- ☐ data.base()
- ☐ database()
- ☐ data()

Question 1

Not yet answered

Marked out of 1.00

Flag question

Suppose the yearly rainfall for a city in southern California follows a normal distribution, with a mean of 18 inches and a standard deviation of 6 inches. For a randomly selected year, what is the probability that rainfall will be less than 10 inches?

Select one:

- ☐ 0.87176
- ☐ 0.90456
- ☒ 0.09176
- ☐ 0.90176
- ☐ 0.29176

What is the R command used to obtain the five number summary?

Select one:

- ☐ `fivenumber(variable)`
- ☒ `summary(variable)`
- ☐ `5numbersummary(variable)`
- ☐ `fivenumbersummary(variable)`

What is the R command that you can use to import a csv file?

Select one:

- ☐ `read.xlsx(filename.csv, header=TRUE)`
- ☒ `read.csv("filename.csv", header=TRUE)`
- ☐ `read.csv(filename.csv, header=TRUE)`
- ☐ `read.xlsx("filename.csv", header=TRUE)`
- ☐ `import.csv("filename.csv", header=TRUE)`

What is the output of the following function?

```
X<-c(2,5,6,3,3,2,1,1,0,9,1,0,5,4,9,4,9,9)
```

```
get.f1<-function(y){  
  u1<-table(X)  
  names(u1[u1==min(u1)])  
}
```

get.f1(X)

Select one:

- ☐ 1
- ☐ 9
- ☐ 3
- ☐ 2
- ☒ 6

Verbal SAT test scores X , for which the mean is 500 and the standard deviation is 100, assume to have a normal distribution. Find the probability that verbal SAT test score is less than 650.

Select one:

- ☒ 0.93319
- ☐ 0.76319
- ☐ 0.88319
- ☐ 0.98819
- ☐ 0.92576

Consider following probability density function ($f_x(x)$).

$$f_x(x) = \begin{cases} (1/4)x^3; & 0 \leq x \leq 2 \\ 0; & \text{otherwise} \end{cases}$$

Find $E(X^2)$.

Select one:

- ☐ 7/3
- ☐ 8/5
- ☐ -8/3
- ☒ 8/3
- ☐ -8/5

Sri Lanka Institute of Information Technology

Suppose that the amount of money that students at a college spend on textbooks this semester have a normal distribution with mean \$360 and standard deviation \$120. What is the probability that a randomly selected student spends between \$250 and \$480 on textbooks this semester?

Select one:

- ☐ 0.88255
- ☐ 0.55266
- ☐ 0.22255
- ☐ 0.66388
- ☒ 0.66255

Suppose that $p = 0.512$ is the proportion of one-child families in which the child is a boy. For a random sample of $n = 50$ one-child families, estimate the probability that no of families will be in between 15 and 24 with one boy using suitable approximation? $P(15 < X < 24)$

Select one:

- ☐ 0.72548
- ☐ 0.57248
- ☐ 0.82547
- ☐ 0.77548
- ☒ 0.27548

Consider following probability density function ($f_X(x)$).

$$f_X(x) = \begin{cases} (1/4)x^3; & 0 \leq x \leq 2 \\ 0; & \text{otherwise} \end{cases}$$

Find $E(X)$.

Select one:

- ☐ 8/9
- ☐ 7/9
- ☐ 7/5
- ☒ 8/5
- ☐ -8/9

red

Consider following probability density function ($f_x(x)$).

$$f_x(x) = \begin{cases} kx^4; & -3 \leq x \leq 2 \\ 0; & \text{otherwise} \end{cases}$$

on

Find k value.

Select one:

- ☐ -2/55
- ☐ -1/55
- ☐ 1/60
- ☒ 1/55
- ☐ 2/55



Sri Lanka Institute of Information Technology

Consider following probability density function ($f_x(x)$).

$$f_x(x) = \begin{cases} (1/4)x^3; & 0 \leq x \leq 2 \\ 0; & \text{otherwise} \end{cases}$$

Find E(X).

Select one:

- ☐ -8/9
- ☐ 8/9
- ☐ 7/5
- ☐ 7/9
- ☒ 8/5

Consider following probability density function ($f_X(x)$).

$$f_X(x) = \begin{cases} kx^4; & -3 \leq x \leq 2 \\ 0; & \text{otherwise} \end{cases}$$

Find k value.

Select one:

- ☐ -1/55
- ☐ 1/60
- ☐ 2/55
- ☐ -2/55
- ☒ 1/55

Consider following probability density function ($f_X(x)$).

$$f_X(x) = \begin{cases} kx^4; & -3 \leq x \leq 2 \\ 0; & \text{otherwise} \end{cases}$$

Find k value.

Select one:

- ☐ -2/55
- ☒ 1/55
- ☐ 2/55
- ☐ 1/60
- ☐ -1/55



Sri Lanka Institute of Information Technology

Question 1

Not answered

Flagged out of

Flag question

What is the output of the following function?

```
X<-c(2,5,6,3,3,2,1,1,0,9,1,0,5,4,9,4,9,9)
```

```
get.f1<-function(y){  
  u1<-table(X)  
  names(u1[u1==min(u1)])  
}  
get.f1(X)
```

Select one:

- ☐ 2
- ☒ 1
- ☒ 6
- ☐ 9
- ☐ 3

wered
of
estion

Consider following probability density function ($f_x(x)$).

$$f_x(x) = \begin{cases} (1/4)x^2; & 0 \leq x \leq 2 \\ 0; & \text{otherwise} \end{cases}$$

Find $E(X^2)$.

Select one:

- ☐ -8/5
- ☐ 7/3
- ☐ 8/5
- ☐ -8/3
- ☒ 8/3

stitute of Information Technology

What is the output of the following function?

```
X<-c(2,5,6,3,3,2,1,1,0,9,1,0,5,4,9,4,9,9)
```

```
get.f1<-function(y){  
  u1<-table(X)  
  names(u1[u1==min(u1)])  
}
```

```
get.f1(X)
```

Select one:

- ☐ 1
- ☐ 2
- ☒ 6
- ☐ 3
- ☐ 9

"[13,15]" "[15,17]" "[17,19]" "[19,21]" "[21,23]" "[23,25]" "[25,27]"

Select one:

☐

```
d<-c(13,15,17,19,21,23,25,27)
b <- c()
for(i in 1:8){
  b[i] <- paste0("[", d[i], ",", d[i+1], "]")
}
print(b)
```

☐

```
d<-c(13,15,17,19,21,23,25,27)
b <- c()
for(i in 1:7){
  b[i] <- paste0("[", d[i+1], ",", d[i], "]")
}
print(b)
```

☐

```
d<-c(13,15,17,19,21,23,25,27)
b <- c()
for(i in 1:8){
  b[i] <- paste0("[", d[i-1], ",", d[i], "]")
}
print(b)
```

☒

```
d<-c(13,15,17,19,21,23,25,27)
b <- c()
for(i in 1:7){
  b[i] <- paste0("[", d[i], ",", d[i+1], "]")
}
print(b)
```

☐

```
d<-c(13,15,17,19,21,23,25,27)
b <- c()
for(i in 1:6){
  b[i] <- paste0("[", d[i], ",", d[i-1], "]")
}
```

Suppose the yearly rainfall for a city in southern California follows a normal distribution, with a mean of 18 inches and a standard deviation of 6 inches. For a randomly selected year, what is the probability that rainfall will be less than 10 inches?

Select one:

- ☐ 0.90176
- ☐ 0.90456
- ☐ 0.87176
- ☒ 0.09176
- ☐ 0.29176

What is the R command used to obtain the five number summary?

Select one:

- ☐ `fivenumbersummary(variable)`
- ☐ `5numbersummary(variable)`
- ☐ `fivenumber(variable)`
- ☒ `summary(variable)`

What is the R command used to create database in R?

Select one:

- ☐ `database()`
- ☒ `data.frame()`
- ☐ `data()`
- ☐ `data.base()`

Verbal SAT test scores X , for which the mean is 500 and the standard deviation is 100, assume to have a normal distribution. Find the probability that verbal SAT test score is less than 650.

Select one:

- ☒ 0.93319
- ☐ 0.92576
- ☐ 0.98819
- ☐ 0.76319
- ☐ 0.88319

Suppose that an airline runs a commuter flight that holds 40 people. The airline knows that the weights of passenger plus luggage for typical customers on this flight has a mean of 210 pounds and a standard deviation of 8 pounds. What is the probability that the sample mean weight of passenger plus luggage is less than 208 pounds for a random sample of 40 customers?

Select one:

- ☐ 0.05576
- ☐ 0.35075
- ☒ 0.05705
- ☐ 0.95705
- ☐ 0.07505

Suppose that $p = 0.512$ is the proportion of one-child families in which the child is a boy. For a random sample of $n = 50$ one-child families, estimate the probability that no of families will be in between 15 and 24 with one boy using suitable approximation? [$P(15 < X < 24)$]

Select one:

- ☐ 0.82547
- ☐ 0.77548
- ☐ 0.57248
- ☒ 0.27548
- ☐ 0.72548

Consider following probability density function ($f_X(x)$).

$$f_X(x) = \begin{cases} (1/4)x^3; & 0 \leq x \leq 2 \\ 0; & \text{otherwise} \end{cases}$$

Find $E(X^2)$.

Select one:

- ☐ -8/5
- ☐ -8/3
- ☐ 8/5
- ☐ 7/3
- ☒ 8/3

Suppose the yearly rainfall for a city in southern California follows a normal distribution, with a mean of 18 inches and a standard deviation of 6 inches. For a randomly selected year, what is the probability that rainfall will be less than 10 inches?

Select one:

- ☐ 0.87176
- ☐ 0.90456
- ☐ 0.29176
- ☐ 0.90176
- ☒ 0.09176

Vehicle speeds at a certain highway location are assumed to have approximately a normal distribution with mean 60mph and standard deviation 6mph. The speeds for a randomly selected sample of $n = 36$ vehicles will be recorded. What is the probability that sample mean speed is not more than 58mph?

Select one:

- ☐ 0.20275
- ☐ 0.92274
- ☐ 0.03375
- ☒ 0.02275
- ☐ 0.82275

Consider following probability density function ($f_X(x)$).

$$f_X(x) = \begin{cases} (1/4)x^3; & 0 \leq x \leq 2 \\ 0; & \text{otherwise} \end{cases}$$

Find $E(X)$.

Select one:

- ☒ 8/5
- ☐ 8/9
- ☐ -8/9
- ☐ 7/5
- ☐ 7/9

Suppose that an airline runs a commuter flight that holds 40 people. The airline knows that the weights of passenger plus luggage for typical customers on this flight has a mean of 210 pounds and a standard deviation of 8 pounds. What is the probability that the sample mean weight of passenger plus luggage is in between 206 pounds and 212 pounds for a random sample of 40 customers?

Select one:

- ☐ 0.31716
- ☐ 0.62416
- ☒ 0.94216
- ☐ 0.83216
- ☐ 0.49216

What is the R command that you can used to import a csv file?

Select one:

- ☐ `import.csv ("filename.csv", header=TRUE)`
- ☐ `read.xlsx ("filename.csv", header=TRUE)`
- ☐ `read.csv (filename.csv, header=TRUE)`
- ☒ `read.csv ("filename.csv", header=TRUE)`
- ☐ `read.xlsx (filename.csv, header=TRUE)`

Vehicle speeds at a certain highway location are assumed to have approximately a normal distribution with mean 60mph and standard deviation 6mph. The speeds for a randomly selected sample of $n = 36$ vehicles will be recorded. What is the probability that sample mean speed is not more than 58mph?

Select one:

- ☐ 0.03375
- ☐ 0.20275
- ☐ 0.82275
- ☒ 0.02275
- ☐ 0.92274

Verbal SAT test scores X , for which the mean is 500 and the standard deviation is 100, assume to have a normal distribution. Find the probability that verbal SAT test score is less than 650.

Select one:

- ☒ 0.93319
- ☐ 0.76319
- ☐ 0.88319
- ☐ 0.98819
- ☐ 0.92576

on 1.

It answered
ed out of

eg question:

Suppose that $p = 0.512$ is the proportion of one-child families in which the child is a boy. For a random sample of $n = 50$ one-child families, estimate the probability that there will be 20 or fewer families with one boy using suitable approximation?

Select one:

- ☐ 0.87493
- ☐ 0.08893
- ☐ 0.85593
- ☐ 0.70493
- ☒ 0.07493

General