Module 13 homework

Mason Deja

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Reproductive Habits of Roe Deer

1. The probability that a Roe Deer has more than 2 fawns is 0.67.
2. The probability that a sample of 10 Roe Deer will have an average of more than 2 fawns is 0.91.
3. The probability that a sample of 35 Roe Deer will have an average of more than 2 fawns is 0.99.
4. The probability that a sample of 35 Roe Deer will have a mean between 2.0 and 2.3 fawns is 0.89.
5. The most common 90% of sample means for n=35 Roe Deer is 35.9.
6. The mean such that 20% of all samples of n=35 Roe Deer have a smaller mean is 34.61.

Accuracy and Precision

1. Four numbers that would be considered precise and accurate would be 59,60,61 and 60.
2. Four numbers that would be considered imprecise but accurate would be 30, 57, 63 and 70.
3. Four numbers that would be considered precise but inaccurate would be 45, 48, 44 and 41.
4. Four numbers that would be considered imprecise and inaccurate would be 2, 36, 12 and 58.

R Stuff

library(NCStats)

distrib(2,mean=2.2,sd=0.46, lower.tail = FALSE)

distrib(2,mean=2.2,sd=0.46/sqrt(10),lower.tail=FALSE)

distrib(2,mean=2.2,sd=0.46/sqrt(35),lower.tail=FALSE)

a<-distrib(2.3,mean=2.2,sd=0.46/sqrt(35))

b<-distrib(2.0,mean=2.2,sd=0.46/sqrt(35))

a-b

distrib(.90,mean=35,sd=0.46,type="q")

distrib(.20,mean=35,sd=0.46,type="q")