edX

Homework

Please answer the following questions. Be sure that you have downloaded the associated Excel file before beginning the homework. This lesson uses the **JulyPointEstimationHW.xlsx** file.

*Remember that homework counts for 20% of your final grade. You are allowed **unlimited** attempts per question for homework problems. The main goal of homework is for you to practice and learn how to apply what you've learned in the content without worrying about getting the problem right the first time. Some homework problems may also provide hints or advice. Have fun!*

M4L2HW1

2/2 points (graded)
Five chips (numbered 1-5) are in a bowl. Two chips are drawn repeatedly (with replacement) from the bowl. Let the random variable x-bar be the mean of the two chips drawn. Calculate the mean and variance of x-bar.

Mean

○ 1

○ 2

- ⊙ 3 ✔

- ○ 4

Variance

- ⊙ 1 ✔

- ○ 2

- ○ 3

- ○ 4

Submit

✔ Correct (2/2 points)

M4L2HW2

2/2 points (graded)

The number of ounces in a soda can follows a normal random variable with mean = 12.1 ounces and standard deviation = 0.05 ounces. Assume the number of ounces in each can of soda in a six pack are independent random variables. What is the mean and standard deviation of the mean number of ounces in a six pack of soda?

Mean

○ 12.0

◉ 12.1 ✔

○ 12.2

○ 12.3

Standard Deviation

◉ 0.0204 ✔

○ 0.0224

○ 0.0422

○ 0.0444

Submit

✔ Correct (2/2 points)

M4L2HW3

2/2 points (graded)

Let p-hat be the fraction of heads observed when we toss a fair coin 1,600 times. Find the mean and standard deviation of p-hat.

Mean

○ 0.3

○ 0.4

◉ 0.5 ✔

○ 0.6

Standard Deviation

○ 0.0100

○ 0.0125 ✔

○ 0.0150

○ 0.0175

Submit

✔ Correct (2/2 points)