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Homework

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

M3L6HW1

2/2 points (graded)

Suppose that average number of ounces in a soda can is 12.03, that the standard deviation is 0.05 ounces, and that this follows a normal distribution. Answer the following questions.

If a soda can is acceptable if it contains at least 12 ounces, what percentage of cans are acceptable?

☐ 67%

☐ 69%

☐ 71%☒ 73% ✓

What percentage of cans have less than 12.1 ounces?

☐ 90%☒ 92% ✓☐ 94%☐ 96%

✓ Correct (2/2 points)

M3L6HW2

2/2 points (graded)

The annual demand for a drug is normally distributed with a mean of 40,000 units and a standard deviation of 10,000 units. Answer the following questions.

What is the probability that annual demand is between 35,000 and 49,000 units, inclusive?

☒ 51% ✓

☐ 53%

☐ 55%

☐ 57%

If you want to have only a 5% chance of running out of the drug, at what level should you set annual production?

☐ 46,559

☐ 55,460

☒ 56,449 ✓

☐ 69,546

Submit

✓ Correct (2/2 points)

M3L6HW3

2/2 points (graded)

The weekly sales of Volvo's Cross Country station wagons are normally distributed with a mean of 1,000 and standard deviation of 250. Answer the following questions.

What is the probability that between 400 through 1,100, inclusive, station wagons are sold during one week?

☐ 55%

☐ 60%

☒ 65% ✓

☐ 70%

There is a 1% chance that fewer than what number of station wagons is sold during a week?

☐ 318

☒ 418 ✓

☐ 518

☐ 618

Submit

✓ Correct (2/2 points)

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