Started on	Thursday, September 24, 2020, 8:22 PM
State	Finished
Completed on	Thursday, September 24, 2020, 8:31 PM
Time taken	8 mins 28 secs
Grade	**7** out of 7 (**100%**)

Question 1

Correct

1 points out of 1

The mean of a normal probability distribution is 500 and the standard deviation is 10. About 95% of the observations lie between what two values?

Select one:

○ a. 350 and 650

◉ b. 480 and 520 ✔

○ c. 475 and 525

○ d. 400 and 600

Question 2

Correct

1 points out of 1

Management is considering a bonus system to increase production. One suggestion is to pay a bonus on the highest 5% of production based on past experience. Past records indicate that an average of 4,000 units of a small assembly is produced during a week. The distribution of the weekly production is approximately normally distributed with a standard deviation of 60 units. If the bonus is paid on the upper 5% of production, the bonus will be paid on how many units or more?

Select one:

○ a. 5120

○ b. 3196

○ c. 6255

◉ d. 4099 ✔

Question 3

Correct

1 points out of 1

A cola-dispensing machine is set to dispense a mean of 2.02 liters into a container labeled 2 liters. Actual quantities dispensed vary and the amounts are normally distributed with a standard deviation of 0.015 liters. What is the probability a container will have less than 2 liters?

Select one:

○ a. 0.1926

◉ b. 0.0918 ✔

○ c. 0.3413

○ d. 0.8741

Question 4

Correct

1 points out of 1

An analysis of the grades on the first test in History 101 revealed that they approximate a normal curve with a mean of 75 and a standard deviation of 8. The instructor wants to award the grade of A to the upper 10% of the test grades. To the nearest percent, what is the dividing point between an A and a B grade?

Select one:

○ a. 80

○ b. 90

○ c. 95

◉

    ◉ d. 85   ✔

Question 5

Correct

1 points out of 1

A college professor noted that the grades of his students in an introductory statistics class were normally distributed with a mean of 76.5 and a standard deviation of 9. If 67.36% of his students received grades of C or above, what is the minimum score of those students receiving a grade of at least a C?

Select one:

  ◯ a. 67.36

  ◯ b. 70.00

  ◯ c. 66.56

  ◉ d. 72.45   ✔

Question 6

Correct

1 points out of 1

Customers of the Key Refining Company charge an average of $70 per month. The distribution of amounts charged is approximately normal, with a standard deviation of $10. What is the probability of selecting a credit card customer at random and finding the customer charged between $70 and $83?

Select one:

  ◯ a. 0.3413

  ◉ b. 0.4032   ✔

  ◯ c. 0.4750

  ◯ d. 0.1962

Question 7

Correct

1 points out of 1

The distribution of the annual incomes of a group of middle management employees approximated a normal distribution with a mean of $37,200 and a standard deviation of $800. About 68% of the incomes lie between what two incomes?

Select one:

  ◯ a. $34,800 and $39,600

  ◉ b. $36,400 and $38,000   ✔

  ◯ c. $30,000 and $40,000

  ◯ d. $35,600 and $38,800