

csd3240-csd3241-f24-meta.sg

[Dashboard](#) / [My courses](#) / [csd3240-csd3241-f24-meta.sg](#) / [17 November - 23 November](#) / [Pop Up Quiz 4](#)

Started on	Thursday, 21 November 2024, 3:12 PM
State	Finished
Completed on	Thursday, 21 November 2024, 3:25 PM
Time taken	13 mins 1 sec
Grade	10.00 out of 10.00 (100%)

Question 1

Correct

Mark 2.00 out of 2.00

Flag question

An electrical firm manufactures light bulbs that have a length of life that is approximately normally distributed, with mean equal to 800 hours and a standard deviation of 40 hours. Find the probability that a random sample of 16 bulbs will have an average life of less than 775 hours.

Select one:

☐ a. $\Phi(1.5)$

☐ b. $\Phi(2.5)$

☐ c. None of these

☒ d. $\Phi(-2.5)$ ✓

☐ e. $\Phi(-1.5)$

Your answer is correct.

The correct answer is: $\Phi(-2.5)$

Question 2

Correct

Mark 2.00 out of 2.00

Flag question

The mean diameter of marbles manufactured at a particular toy factory is 0.850 cm with a standard deviation 0.01 cm. What is the probability of selecting a random sample of 100 marbles that has the mean diameter greater than 0.851 cm?

Select one:

☐ a. None of these

☒ b. $1-\Phi(1)$ ✓

☐ c. $\Phi(2)$

☐ d. $\Phi(1)$

☐ e. $1-\Phi(-2.5)$

Your answer is correct.

The correct answer is: $1-\Phi(1)$

Question 3

Correct

Mark 2.00 out of 2.00

Flag question

A survey found that the Singapore family generates an average of 17.2 pounds of garbage each year. Assume the standard deviation of the distribution is 2.5 pounds. Find the probability that the mean of a sample of 55 families will be between 17 and 18 pounds. (Use the z Score Table to find the approximated values)

Select one:

☐ a. 0.6523

☐ b. 0.8723

☐ c. None of these

☒ d. 0.7147 ✓

☐ e. 0.465

Your answer is correct.

The correct answer is: 0.7147

Question 4

Correct

Mark 2.00 out of 2.00

Flag question

Use the settings from the previous question. What will be the variance of the weight of garbage (in pound) for 100 families?

Select one:

☐ a. 0.125

☐ b. 0.00625

☐ c. 0.25

☒ d. 0.0625 ✓

☐ e. None of these

Your answer is correct.

The correct answer is: 0.0625

Question 5

Correct

Mark 2.00 out of 2.00

Flag question

The average teacher's salary in Singapore is SGD 52,174 per year. Suppose that the distribution is normal with standard deviation SGD 7500. What is the probability that a randomly selected teacher makes less than SGD 50,000 per year?

Select one:

☐ a. 0.668

☐ b. 0

☐ c. None of these

☒ d. 0.3860 ✓

☐ e. 0.3287

Your answer is correct.

The correct answer is: 0.3860

Quiz navigation

1

2

3

4

5

Show one page at a time

Finish review