

## Examrace

### Statistics MCQs –Continuous Distributions Part 10

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181. If  $P(Z > z) = 0.6844$  what is the value of  $z$  ( $z$  has a standard normal distribution)?

- a. -0.48
- b. 0.48
- c. -1.04
- d. 1.04
- e. -0.21

Answer: A

182. If  $P(Z < z) = 0.6844$  what is the value of  $z$  ( $z$  has a standard normal distribution)?

- a. -0.48
- b. 0.48
- c. -1.04
- d. 1.04
- e. -0.21

Answer: B

183. If  $P(Z > z) = 0.8508$  what is the value of  $z$  ( $z$  has a standard normal distribution)?

- a. -0.48
- b. 0.48
- c. -1.04
- d. 1.04
- e. -0.21

Answer: C

184. If  $P(Z < z) = 0.8508$  what is the value of  $z$  ( $z$  has a standard normal distribution)?

- a. -0.48
- b. 0.48

- c. -1.04
- d. 1.04
- e. -0.21

Answer: D

185. If  $P(Z > z) = 0.5832$  what is the value of  $z$  ( $z$  has a standard normal distribution)?

- a. -0.48
- b. 0.48
- c. -1.04
- d. 1.04
- e. -0.21

Answer: E

186. If  $P(Z < z) = 0.5832$  what is the value of  $z$  ( $z$  has a standard normal distribution)?

- a. -0.48
- b. 0.48
- c. -1.04
- d. 1.04
- e. 0.21

Answer: E

187. If  $P(Z > z) = 0.9830$  what is the value of  $z$  ( $z$  has a standard normal distribution)?

- a. -2.12
- b. 2.12
- c. -1.77
- d. 1.77
- e. -0.21

Answer: A

188. If  $P(Z < z) = 0.9830$  what is the value of  $z$  ( $z$  has a standard normal distribution)?

- a. -2.12
- b. 2.12

- c. -1.77
- d. 1.77
- e. -0.21

Answer: B

189. If  $P(Z > z) = 0.9616$  what is the value of  $z$  ( $z$  has a standard normal distribution)?

- a. -2.12
- b. 2.12
- c. -1.77
- d. 1.77
- e. -0.21

Answer: C

190. If  $P(Z < z) = 0.9616$  what is the value of  $z$  ( $z$  has a standard normal distribution)?

- a. -2.12
- b. 2.12
- c. -1.77
- d. 1.77
- e. -0.21

Answer: D

191. Given that  $z$  is a standard normal random variable and that the area to the left of  $z$  is 0.305, then the value of  $z$  is:

- a. 0.51
- b. -0.51
- c. 0.86
- d. -0.86

Answer: B

- e. 0.24

192. The diameters of oranges found in the orchard of an orange farm follow a normal distribution with a mean of 120mm and a standard deviation of 10mm. The smallest 10% of oranges (those with the smallest diameters) cannot be sold and are therefore given away. What

is the cut-off diameter in this case if oranges with the smallest 10% of diameters are to be given away?

- a. 107.2
- b. 103.6
- c. 111.6
- d. 109.6
- e. 105.9

Answer: A

193. The diameters of oranges found in the orchard of an orange farm follow a normal distribution with a mean of 120mm and a standard deviation of 10mm. The smallest 5% of oranges (those with the smallest diameters) cannot be sold and are therefore given away. What is the cut-off diameter in this case if oranges with the smallest 5% of diameters are to be given away?

- a. 107.2
- b. 103.6
- c. 111.6
- d. 109.6
- e. 105.9

Answer: B

194. The diameters of oranges found in the orchard of an orange farm follow a normal distribution with a mean of 120mm and a standard deviation of 10mm. The smallest 20% of oranges (those with the smallest diameters) cannot be sold and are therefore given away. What is the cut-off diameter in this case if oranges with the smallest 20% of diameters are to be given away?

- a. 107.2
- b. 103.6
- c. 111.6
- d. 109.6
- e. 105.9

Answer: C

195. The diameters of oranges found in the orchard of an orange farm follow a normal distribution with a mean of 120mm and a standard deviation of 10mm. The smallest 15% of oranges (those with the smallest diameters) cannot be sold and are therefore given away. What is the cut-off diameter in this case if oranges with the smallest 15% of diameters are to be given away?

- a. 107.2
- b. 103.6
- c. 111.6
- d. 109.6
- e. 105.9

Answer: D

196. The diameters of oranges found in the orchard of an orange farm follow a normal distribution with a mean of 120mm and a standard deviation of 10mm. The smallest 8% of oranges (those with the smallest diameters) cannot be sold and are therefore given away. What is the cut-off diameter in this case if oranges with the smallest 8% of diameters are to be given away?

- a. 107.2
- b. 103.6
- c. 111.6
- d. 109.6
- e. 105.9

Answer: E

197. The diameters of oranges found in the orchard of an orange farm follow a normal distribution with a mean of 120mm and a standard deviation of 10mm. The farmer would like to select the largest 10% of oranges (those with the largest diameters) in order to be able to keep them for himself and his family to enjoy! What is the cut-off diameter in this case if oranges with the largest 10% of diameters are to be kept?

- a. 132.8
- b. 136.4
- c. 128.4
- d. 130.4
- e. 134.1

Answer: A

198. The diameters of oranges found in the orchard of an orange farm follow a normal distribution with a mean of 120mm and a standard deviation of 10mm. The farmer would like to select the largest 5% of oranges (those with the largest diameters) in order to be able to keep them for himself and his family to enjoy! What is the cut-off diameter in this case if oranges with the largest 5% of diameters are to be kept?

- a. 132.8
- b. 136.4
- c. 128.4
- d. 130.4
- e. 134.1

Answer: B

199. The diameters of oranges found in the orchard of an orange farm follow a normal distribution with a mean of 120mm and a standard deviation of 10mm. The farmer would like to select the largest 20% of oranges (those with the largest diameters) in order to be able to keep them for himself and his family to enjoy! What is the cut-off diameter in this case if oranges with the largest 20% of diameters are to be kept?

- a. 132.8
- b. 136.4
- c. 128.4
- d. 130.4
- e. 134.1

Answer: C

200. The diameters of oranges found in the orchard of an orange farm follow a normal distribution with a mean of 120mm and a standard deviation of 10mm. The farmer would like to select the largest 15% of oranges (those with the largest diameters) in order to be able to keep them for himself and his family to enjoy! What is the cut-off diameter in this case if oranges with the largest 15% of diameters are to be kept?

- a. 132.8
- b. 136.4
- c. 128.4
- d. 130.4

e. 134.1

Answer: D

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