

Examrace

Statistics MCQs – Sampling Distributions Part 6

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101. It is claimed that 30 % of all professional soccer players around the world have suffered some form of injury as a result of playing the sport, which has meant their absence from the game for a period of at least one month during the soccer-playing season. 500 professional soccer players from around the world are interviewed. What is the probability that less than 25 % of them have suffered such an injury?

- a. 0.0073
- b. 0.0721
- c. 0.1635
- d. 0.8365
- e. 0.9927

Answer: A

102. It is claimed that 30 % of all professional soccer players around the world have suffered some form of injury as a result of playing the sport, which has meant their absence from the game for a period of at least one month during the soccer-playing season. 500 professional soccer players from around the world are interviewed. What is the probability that less than 27 % of them have suffered such an injury?

- a. 0.0073
- b. 0.0721
- c. 0.1635
- d. 0.8365
- e. 0.9927

Answer: B

103. It is claimed that 30 % of all professional soccer players around the world have suffered some form of injury as a result of playing the sport, which has meant their absence from the game for a period of at least one month during the soccer-playing season. 500 professional soccer players from around the world are interviewed. What is the probability that less than 28 % of them have suffered such an injury?

- a. 0.0073
- b. 0.0721
- c. 0.1635
- d. 0.8365
- e. 0.9927

Answer: C

104. It is claimed that 30 % of all professional soccer players around the world have suffered some form of injury as a result of playing the sport, which has meant their absence from the game for a period of at least one month during the soccer-playing season. 500 professional soccer players from around the world are interviewed. What is the probability that less than 32 % of them have suffered such an injury?

- a. 0.0073
- b. 0.0721
- c. 0.1635
- d. 0.8365
- e. 0.9927

Answer: D

105. It is claimed that 30 % of all professional soccer players around the world have suffered some form of injury as a result of playing the sport, which has meant their absence from the game for a period of at least one month during the soccer-playing season. 500 professional soccer players from around the world are interviewed. What is the probability that less than 35 % of them have suffered such an injury?

- a. 0.0073
- b. 0.0721
- c. 0.1635
- d. 0.8365
- e. 0.9927

Answer: E

106. Suppose an actual census showed that 18.4 % of the households in Gauteng have incomes in excess of R50,000 per annum. What is the probability that the sample proportion of households with an income in excess of R50,000 will be 0.22 or greater for a random sample of 750 households?

- a. 0.0055
- b. 0.9945
- c. 0.9949
- d. 0.0041
- e. 0.9594

Answer: A

107. We know from past experience that 30 % of all stats students at a particular university do not attend lectures on Fridays. We take a random sample of 100 stats students from this university and interview them. What is the probability that less than 20 % of those interviewed have not attended lectures on Fridays?

- a. 0.0062
- b. 0.4854
- c. 0.4938
- d. 0.0146
- e. 0.7561

Answer: D

108. Suppose that fifty percent of all scholars attend schools within 50 kilometres of their homes. In a sample of 500 scholars, what is the probability that the proportion of scholars who attend schools within 50 kilometres of their homes lies between 0.45 and 0.55?

- a. 0.4875
- b. 0.9818
- c. 0.4909
- d. 0.9750
- e. 0.5000

Answer: D