

Q6. During the data review, a researcher states, "It is interesting that the percentage of patients with a French mother tongue and an English mother tongue is quite similar." How did the researcher come to this conclusion?

- a) Theoretical probability assessment
- b) Subjective probability assessment
- c) Empirical probability assessment
- d) Binomial probability assessment
- e) None of the above

Questions 7-8 are based on the following:

A grocery store purchases melons from two distributors, J and K. Distributor J provides melons from organic farms. Distributor K provides melons from nonorganic farms. The probability that a melon selected at random from Distributor J has a diameter greater than 137 mm is 0.2119, and the probability is 0.8413 that a melon selected at random from Distributor K will have a diameter greater than 137 mm. For all the melons at the grocery store, 70 percent of the melons are provided by Distributor J and 30 percent are provided by Distributor K.

Q7. For a melon selected at random from the grocery store, what is the probability that the melon will have a diameter greater than 137 mm?

- a) 0.4007
- b) 0.3501
- c) 0.7741
- d) 0.1123
- e) 0.2122

Q8. Given that a melon selected at random from the grocery store has a diameter greater than 137 mm, what is the probability that the melon will be from Distributor J?

- a) 0.4561
- b) 0.2341
- c) 0.3701
- d) 0.4451
- e) 0.7819

Q9. _____ data are values that can take on any real numbers, including numbers that contain decimal points. This data is often the result of measuring observations rather than counting them.

- a) Discrete
- b) Cross-sectional
- c) Qualitative
- d) Continuous
- e) Time series

Q10. _____ data are values based on observations that can be counted and are typically represented by whole numbers.

- a) Discrete
- b) Continuous
- c) Nominal
- d) Cross-sectional
- e) Time series