1. A socioeconomic survey collects data on annual income levels: “Low” = $0 - $29,999; “Middle” = $30,000 - $99,999; “High” = $100,000+. This type of data can be classified as

(a) Numerical: Continuous
(b) Numerical: Discrete
(c) Categorical: Nominal
(d) Categorical: Ordinal
(e) None of the above

2. Of the following “measures of center” of a sample of data values, which is generally the most sensitive to the presence of extreme outliers?

(a) mode
(b) median
(c) mean
(d) range
(e) None of the above

3. A study of 500 people finds that their mean age is 45.2 years old. This mean value is a

(a) parameter
(b) statistic
(c) sample characteristic
(d) Both (b) and (c)
(e) None of the above

4. In a random sample of a certain type of insect, it is found that 60% have a body length in the interval [20, 50) mm, and 40% are in [50, 80) mm. Which of the following estimates is true for these grouped data values?

(a) mean = 47 mm, median = 45 mm
(b) mean = 47 mm, median = 50 mm
(c) mean = 50 mm, median = 45 mm
(d) mean = 50 mm, median = 50 mm
(e) None of the above

5. In a medical study, five patients are subjected to a rhinovirus, and the number of days until their resulting cold symptoms disappear is recorded: 5.9, 7.4, 6.5, 7.1, 7.1. Which of the following statements is true?

(a) median = 6.5, standard deviation = 0.60
(b) median = 7.1, standard deviation = 0.60
(c) median = 7.1, standard deviation = 0.54
(d) median = 7.1, standard deviation = 0.36
(e) None of the above