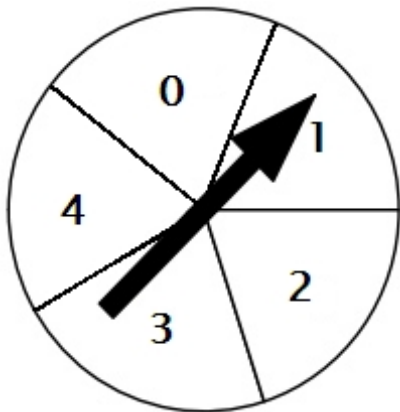


- 1) A probability experiment is conducted. Which of these cannot be considered a probability outcome? 1) _____
- A) 1.21 B) 0.21 C) $\frac{1}{4}$ D) 16%
- 2) In a poll of 500 university students, 235 said that they were opposed to legalizing marijuana. What is the probability that a surveyed student opposes legalization of marijuana? 2) _____
- A) 0.53 B) 0.113 C) 0.887 D) 0.47
- 3) A wheel spinner with five equally-sized spaces numbered 0 to 4 is spun twice. Find the sample space, and determine the probability of the same number on both spins. 3) _____



- A) $\frac{4}{5}$ B) $\frac{1}{5}$ C) $\frac{1}{25}$ D) $\frac{1}{2}$

- 4) A survey asked 35,394 homeowners how many pets they owned. The results were as followed: 4) _____

Number of Pets	Number of Homeowners
0	5,908
1	11,207
2	10,900
3	6,636
4 or more	743
Total	35,394

What is the probability that a sampled homeowner has more than 1 pet?

- A) 0.167 B) 0.516 C) 0.484 D) 0.208

- 5) If the probability that it will rain tomorrow is 0.39, what is the probability that it will not rain tomorrow? 5) _____

- A) -0.39 B) 0.39 C) 1.39 D) 0.61

- 6) If $P(A) = 0.59$, $P(B) = 0.25$, and $P(A \text{ or } B) = 0.84$, are A and B mutually exclusive? 6) _____

- A) Yes B) No

- 7) On a recent Saturday, a total of 1,071 people visited a local library. Of these people, 245 were under age 10, 496 were aged 10–18, 179 were aged 19–30, and the rest were more than 30 years old. 7) _____

One person is sampled at random. What is the probability that the person is less than 19 years old?

- A) 0.741 B) 0.229 C) 0.463 D) 0.692

- 8) If $P(A) = 0.52$, $P(B) = 0.47$, and $P(A \text{ and } B) = 0.4$, find $P(A \text{ or } B)$. 8) _____

- A) 0.495 B) 0.4 C) 0.2 D) 0.59

- 9) A recent poll found that 30% of those surveyed are worried about aggressive drivers on the road. If three people are selected at random, what is the probability that all three will be worried about aggressive drivers on the road? 9) _____

- A) 0.900 B) 0.081 C) 0.027 D) 0.300

- 10) Let A and B be events with $P(A) = 0.2$, $P(B) = 0.8$, and $P(B|A) = 0.3$. Find $P(A \text{ and } B)$. 10) _____

- A) 0.24 B) 0.67 C) 0.06 D) 0.16

- 11) On an eight-question true-false quiz, a student guesses each answer. What is the probability that the student gets at least one of the answers correct? 11) _____
- A) $\frac{1}{256}$ B) $\frac{1}{8}$ C) $\frac{255}{256}$ D) $\frac{7}{8}$
- 12) A medication is 70% effective against a bacterial infection. Find the probability that if 12 people take the medication, at least 1 person's infection will not improve. 12) _____
- A) 0.014 B) 0.700 C) 0.986 D) 0.300
- 13) There are 4 different mathematics courses, 5 different science courses, and 3 different history courses. If a student must take one of each, how many different ways can this be done? 13) _____
- A) 12 B) 15 C) 120 D) 60
- 14) If the letters A, B, C, D, E, and F are to be used in a four-letter code, how many different codes are possible if repetitions are *not* permitted? How many if repetitions are permitted? 14) _____
- A) 600, 800 B) 400, 1296 C) 720, 1290 D) 360, 1296
- 15) On a TV game show, a contestant is shown 7 products from a grocery store and is asked to choose the 3 least-expensive items in the set. The three chosen items need not be in any particular order. In how many ways can the contestant choose the three items? 15) _____
- A) 210 B) 35 C) 6 D) 840
- 16) Given eight students, three of whom are female, if two students are selected at random, without replacement, what is the probability that both students are female? 16) _____
- A) $\frac{9}{64}$ B) $\frac{3}{28}$ C) $\frac{5}{14}$ D) $\frac{25}{28}$
- 17) A package contains 10 resistors, 2 of which are defective. If 3 are selected, find the probability of getting 1 defective resistor. 17) _____
- A) ≈ 0.2333 B) ≈ 0.4667 C) ≈ 0.3571 D) ≈ 0.0167
- 18) Find the probability of selecting 3 science books and 4 math books from 8 science books and 9 math books. The books are selected at random. 18) _____
- A) ≈ 0.0094 B) ≈ 0.0065 C) ≈ 0.3628 D) ≈ 0.0029

Answer Key

Testname: STA2023_REVIEW02

- 1) A
- 2) D
- 3) B
- 4) B
- 5) D
- 6) A
- 7) D
- 8) D
- 9) C
- 10) C
- 11) C
- 12) C
- 13) D
- 14) D
- 15) B
- 16) B
- 17) B
- 18) C