

MQ01 Applied Probability and Statistics C955

Section: Science & Statistics • Total Questions: 10 • Format: Verified Q&A

1. Determine x : $4 + x = 6 - x$

- (B) 1
 - (C) 2
 - (D) 5
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2. If $y = -4$, evaluate the following expression: $20 - y/5 + y$

- (A) -6
 - (B) 6
 - (C) 12
 - (D) 24
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3. The average lifespan of a dalmatian is 11.5 years, with a standard deviation of 1.5 years. What are the two values between which 95% of the data falls for the average lifespan of a dalmatian, assuming a normal distribution?

- (A) 10.0 years and 13.0 years
 - (B) 9.5 years and 13.5 years
 - (C) 8.5 years and 14.5 years
 - (D) 9.0 years and 14.0 years
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4. A single ball is drawn from an opaque bag that contains red, blue, and green balls. The probability of drawing a red ball is 0.3, and the probability of drawing a blue ball is 0.6. What is the probability of drawing a green ball?

- (A) 0.1
 - (B) 0.3
 - (C) 0.5
 - (D) 0.9
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5. A standard deck of 52 playing cards (13 with hearts, 13 with diamonds, 13 with clovers, and 13 with spades) is shuffled, and one card is drawn at random. What is the probability of drawing a heart?

- (A) 01-Mar
 - (B) 01-Feb
 - (C) 01-Apr
 - (D) 45670
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6. A fitness center owner notices that gym attendance increases as the number of daylight hours increases. The owner calculates a correlation coefficient between daylight hours and gym attendance of $r = 0.72$. Based on this information, what can be concluded?

- (A) There is a negative association between daylight hours and gym attendance.
 - (B) There is a negative, causal relationship between daylight hours and gym attendance.
 - (C) There is a positive association between daylight hours and gym attendance.
 - (D) There is a positive, causal relationship between daylight hours and gym attendance.
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7. There are 14 black, 16 white, and 10 red balls in a box. What is the probability of selecting 1 black ball, then 1 red ball, and then 1 white ball, replacing the ball each time?

- (A) $\frac{7}{200}$
 - (B) $\frac{7}{100}$
 - (C) $\frac{21}{200}$
 - (D) Jul-50
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8. Given a normal distribution with a mean of 40 and a standard deviation of 6, what is the range that contains approximately 95% of the data?

- (A) The range is from 28 to 52.
 - (B) The range is from 34 to 46.
 - (C) The range is from 22 to 58.
 - (D) The range is from 30 to 50.
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9. There are 12 cell phone charging cords available at a store for purchase. The length of each charging cord in inches is reflected as 3, 3, 4, 6, 6, 6, 6, 7, 10, 10, 11, and 12, respectively. What are the mean of these data?

- (A) 8
 - (B) 6
 - (C) 7
 - (D) 9
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10. A spinner is divided into four equal sections labeled A, B, C, and D. What is the sample space for this experiment?

- (A)** {A, B, C, D, E}
- (B)** {1, 2, 3, 4}
- (C)** {A, B, C, D}
- (D)** {AB, CD}