

MODULE 6

LESSON 7

QUIZ

1. Balls numbered from 1 to 42 are placed in a container and stirred. If one is drawn at random, find the probability the number is less than 10 or greater than 40.

A. $\frac{1}{2}$

B. 0

C. 1

D. $\frac{11}{42}$

Go to answer 1

2. A coin is tossed three times. Find the probability of getting at least one head.

A. $\frac{1}{8}$

B. $\frac{1}{2}$

C. $\frac{3}{8}$

D. $\frac{7}{8}$

Go to answer 2

3. Find the probability of tossing 5 heads in 5 tosses of a fair coin.

A. $\frac{1}{2}$

B. 0

C. 1

D. $\frac{1}{32}$

Go to answer 3

4. Assume that the probability that an airplane will fail during a torture test is $\frac{1}{2}$ and that the aircraft in question has 4 engines. Find the probability that all of the engines will survive the test.

A. $\frac{1}{16}$

B. $\frac{1}{2}$

C. $\frac{1}{4}$

D. $\frac{1}{8}$

Go to answer 4

5. A six-sided die is tossed twice. Find the probability that the sum is odd and no more than 7.

A. $\frac{1}{12}$

B. $\frac{1}{2}$

C. $\frac{1}{3}$

D. $\frac{1}{6}$

Go to answer 5

6. Assume that the probability that an airplane will fail during a torture test is $\frac{1}{2}$ and that the aircraft in question has 4 engines. Find the probability that no engines will survive the test.

A. $\frac{1}{8}$

B. $\frac{3}{8}$

C. $\frac{1}{16}$

D. $\frac{1}{4}$

Go to answer 6

7. Assume that you draw one card from a card deck. Find the probability of drawing a red card or a face card.

A. $\frac{6}{13}$

B. $\frac{19}{26}$

C. $\frac{3}{13}$

D. $\frac{8}{13}$

Go to answer 7

8. Find the probability of rolling a sum of 4 with one role of three dice.

A. $\frac{1}{361}$

B. $\frac{1}{72}$

C. $\frac{1}{6}$

D. $\frac{1}{18}$

Go to answer 8

9. Find the probability of picking at random, 5 Republicans from a group containing 8 Republicans and 10 Democrats.

A. $\frac{5}{8}$

B. $\frac{4}{9}$

C. $\frac{1}{353}$

D. $\frac{1}{2}$

Go to answer 9

10. Assume that you draw two cards from a card deck without replacement. Find the probability of drawing three aces.

A. 1

B. $\frac{1}{5525}$

C. 0

D. $\frac{1}{13}$

Go to answer 10

11. Find the probability of rolling a sum of 5 or an even sum with one roll of two dice.

A. $\frac{1}{36}$

B. $\frac{11}{12}$

C. $\frac{11}{18}$

D. $\frac{11}{36}$

Go to answer 11

12. Assume that you are dealing with a bucket that contains 7 blue capsules, 3 red capsules, and 6 green capsules. Find the probability of drawing a green capsule or a blue capsule when you make a single draw from the bucket, taking one capsule.

A. $\frac{13}{16}$

B. $\frac{1}{13}$

C. $\frac{1}{7}$

D. $\frac{1}{3}$

Go to answer 12

13. Assume that you are dealing with a bucket that contains 7 blue capsules, 3 red capsules, and 6 green capsules. On two draws from the bucket what is the probability of drawing one red and one green capsule (assuming that the capsule is not returned after the first draw)?

A. $\frac{1}{2}$

B. $\frac{9}{120}$

C. $\frac{9}{16}$

D. $\frac{3}{20}$

Go to answer 13

14. Jeff rolls a die and draws one card from a card deck. What is the probability of his rolling a four and drawing a four?

A. $\frac{1}{312}$

B. $\frac{1}{78}$

C. $\frac{1}{29}$

D. $\frac{1}{5}$

Go to answer 14

15. Three people are on a bus together. What is the probability that at least one was born on a different day of the week than the others?

A. $\frac{1}{49}$

B. $\frac{3}{7}$

C. $\frac{48}{49}$

D. $\frac{1}{7}$

Go to answer 15

16. A certain bugle call is based on four pitches and is five notes long. If a child can play these four pitches on a bugle, what is the probability that the first five notes that the child plays will be the bugle call (assuming that the child is equally likely to play any of the four pitches each time a note is blown)?

A. $\frac{1}{1024}$

B. $\frac{1}{4}$

C. $\frac{1}{5}$

D. $\frac{1}{20}$

Go to answer 16

17. If the probability that Sally passes a test is $\frac{1}{3}$ and that John passes the same test is $\frac{1}{4}$, what is the probability that both fail?

A. $\frac{1}{12}$

B. $\frac{11}{12}$

C. $\frac{1}{2}$

D. $\frac{1}{7}$

Go to answer 17

18. If the probability that Rick will solve a problem is $\frac{1}{4}$ and the probability that Sue will solve the problem is $\frac{2}{5}$, what is the probability that at least one of them will solve the problem?

A. $\frac{9}{20}$

B. $\frac{1}{10}$

C. $\frac{11}{20}$

D. $\frac{3}{16}$

Go to answer 18

19. A man has five pairs of socks (no two pairs are the same color). If he randomly selects two socks from the drawer, what is the probability that he gets a matched pair?

A. $\frac{1}{9}$

B. $\frac{2}{5}$

C. $\frac{1}{2}$

D. $\frac{3}{16}$

Go to answer 19

20. Two cards are selected at random from a deck of 52 playing cards. Find the probability that the first card is a king and the second card is black ten.

A. $\frac{1}{26}$

B. $\frac{2}{5}$

C. $\frac{2}{663}$

D. $\frac{1}{338}$

Go to answer 20

ANSWERS

1. Answer to Question 1 is "D".

If an experiment can have n distinct and equally likely outcomes and if E is an event that an occur in f of these ways, then the probability of E is $P(E) = \frac{f}{n}$.

Go back 1

2. Answer to Question 2 is "D".

Go back 2

3. Answer to Question 3 is "D".

Go back 3

4. Answer to Question 4 is "A".

Go back 4

5. Answer to Question 5 is "C".

Go back 5

6. Answer to Question 6 is "C".

Go back 6

7. Answer to Question 7 is "D".

If A and B are two events that have something in common, then $P(A \text{ or } B) = P(A) + P(B) - P(A \text{ and } B)$.

Go back 7

8. Answer to Question 8 is "B".

Go back 8

9. Answer to Question 9 is "C".

Go back 9

10. Answer to Question 10 is "C".

Go back 10

11. Answer to Question 11 is "C".

Go back 11

12. Answer to Question 12 is "A".

Go back 12

13. Answer to Question 13 is "D".

The events A and B are said to be independent events if and only if $P(B) = P\left(\frac{B}{A}\right)$. If A and B are independent events, then $P(A \text{ and } B) = P(A) \cdot P(B)$.

Go back 13

14. Answer to Question 14 is "B".

Go back 14

15. Answer to Question 15 is "C".

Go back 15

16. Answer to Question 16 is "A".

Go back 16

17. Answer to Question 17 is "C".

Go back 17

18. Answer to Question 18 is "C".

Go back 18

19. Answer to Question 19 is "A".

Go back 19

20. Answer to Question 20 is "C".

If A and B are independent events, then $P(A \text{ and } B) = P(A) \cdot P(B)$.

Go back 20