

6.2 Practice Problems

Name _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Find the probability.

- 1) A bag contains 2 red marbles, 4 blue marbles, and 8 green marbles. What is the probability of choosing a blue marble? 1) _____

A) $\frac{2}{3}$ B) $\frac{1}{7}$ C) $\frac{2}{7}$ D) $\frac{4}{7}$

- 2) A bag contains 17 balls numbered 1 through 17. What is the probability of selecting a ball that has an even number? 2) _____

A) 8 B) $\frac{8}{17}$ C) $\frac{2}{17}$ D) $\frac{17}{8}$

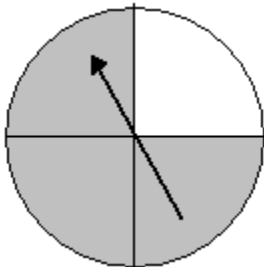
- 3) One digit from the number 7,383,993 is written on each of seven cards. What is the probability of drawing a card that shows 9? 3) _____

A) $\frac{9}{7}$ B) $\frac{2}{7}$ C) $\frac{1}{7}$ D) 1

- 4) Two fair 6-sided dice are rolled. What is the probability the sum of the two numbers on the dice is 5? 4) _____

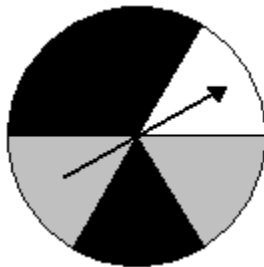
A) $\frac{1}{9}$ B) $\frac{8}{9}$ C) 4 D) $\frac{5}{6}$

- 5) Determine the probability that the spinner lands on white. 5) _____



A) $\frac{1}{2}$ B) $\frac{1}{3}$ C) 1 D) $\frac{1}{4}$

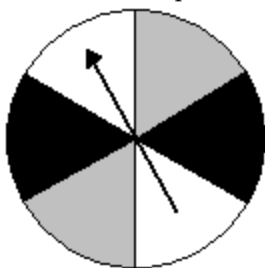
- 6) Determine the probability that the spinner lands on grey. 6) _____



A) $\frac{2}{3}$ B) $\frac{2}{5}$ C) $\frac{1}{6}$ D) $\frac{1}{3}$

7) Determine the probability that the spinner lands on grey.

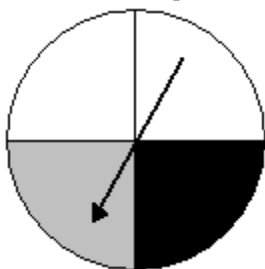
7) _____



- A) $\frac{1}{3}$ B) $\frac{2}{3}$ C) $\frac{1}{6}$ D) $\frac{1}{2}$

8) Determine the probability that the spinner lands on white.

8) _____



- A) $\frac{1}{4}$ B) $\frac{1}{2}$ C) $\frac{2}{3}$ D) $\frac{1}{3}$

9) If a person is randomly selected, find the probability that his or her birthday is in May. Ignore leap years. Assume that all days of the year are equally likely for a given birth.

9) _____

- A) $\frac{1}{12}$ B) $\frac{1}{31}$ C) $\frac{31}{365}$ D) $\frac{1}{365}$

10) A class consists of 23 women and 83 men. If a student is randomly selected, what is the probability that the student is a woman?

10) _____

- A) $\frac{23}{83}$ B) $\frac{1}{106}$ C) $\frac{23}{106}$ D) $\frac{83}{106}$

11) A fair die is rolled. What is the probability of rolling a 3 or a 4?

11) _____

- A) $\frac{1}{36}$ B) 2 C) $\frac{1}{6}$ D) $\frac{1}{3}$

12) A fair die is rolled. What is the probability of rolling an odd number or a number less than 3?

12) _____

- A) $\frac{2}{3}$ B) $\frac{1}{2}$ C) 1 D) $\frac{5}{6}$

13) When two balanced dice are rolled, there are 36 possible outcomes. What is the probability that the sum of the numbers on the dice is 6 or 9?

13) _____

- A) $\frac{1}{4}$ B) $\frac{3}{2}$ C) $\frac{5}{12}$ D) $\frac{1}{54}$

- 14) When two balanced dice are rolled, there are 36 possible outcomes. Find the probability that either doubles are rolled or the sum of the dice is 8. 14) _____
 A) $\frac{5}{18}$ B) $\frac{1}{4}$ C) $\frac{11}{36}$ D) $\frac{1}{36}$
- 15) When two balanced dice are rolled, there are 36 possible outcomes. Find the probability that the sum is a multiple of 3 or greater than 6. 15) _____
 A) $\frac{7}{9}$ B) $\frac{29}{36}$ C) $\frac{13}{18}$ D) $\frac{5}{9}$
- 16) A card is drawn at random from a well-shuffled deck of 52 cards. What is the probability of drawing a face card or a 3? 16) _____
 A) $\frac{2}{13}$ B) $\frac{4}{13}$ C) $\frac{48}{52}$ D) 16
- 17) A lottery game has balls numbered 1 through 19. What is the probability of selecting an even numbered ball or a 4? 17) _____
 A) $\frac{19}{4}$ B) 9 C) $\frac{9}{19}$ D) $\frac{4}{19}$
- 18) A spinner has regions numbered 1 through 21. What is the probability that the spinner will stop on an even number or a multiple of 3? 18) _____
 A) $\frac{10}{9}$ B) $\frac{1}{3}$ C) $\frac{2}{3}$ D) 17
- 19) One digit from the number 1,989,669 is written on each of seven cards. What is the probability of drawing a card that shows 1 or 6? 19) _____
 A) $\frac{9}{7}$ B) $\frac{1}{7}$ C) $\frac{3}{7}$ D) $\frac{2}{7}$
- 20) One card is selected from a deck of cards. Find the probability that the card selected is greater than 3 and less than 8. 20) _____
 A) $\frac{9}{17}$ B) $\frac{5}{13}$ C) $\frac{4}{13}$ D) $\frac{7}{26}$
- 21) A bag contains 8 red marbles, 2 blue marbles, and 1 green marble. What is the probability of choosing a marble that is not blue? 21) _____
 A) $\frac{11}{9}$ B) $\frac{2}{11}$ C) $\frac{9}{11}$ D) 9
- 22) A fair die is rolled. Find the probability that the number obtained is not greater than 4. 22) _____
 A) $\frac{5}{6}$ B) $\frac{2}{3}$ C) $\frac{1}{3}$ D) $\frac{1}{2}$
- 23) A card is drawn at random from a standard 52-card deck. Find the probability that the card is not a queen. 23) _____
 A) $\frac{1}{13}$ B) $\frac{3}{4}$ C) $\frac{12}{13}$ D) $\frac{1}{4}$

24) A card is drawn at random from a standard 52-card deck. Find the probability that the card is an ace or not a club. 24) _____

- A) $\frac{9}{13}$ B) $\frac{43}{52}$ C) $\frac{35}{52}$ D) $\frac{10}{13}$

25) A card is drawn at random from a standard 52-card deck. Find the probability that the card is neither an ace nor a heart. 25) _____

- A) $\frac{4}{13}$ B) $\frac{21}{26}$ C) $\frac{9}{13}$ D) $\frac{35}{52}$

26) Two fair dice are rolled. Find the probability that the sum of the two numbers is not greater than 5. 26) _____

- A) $\frac{1}{6}$ B) $\frac{13}{18}$ C) $\frac{1}{3}$ D) $\frac{5}{18}$

27) If a person is randomly selected, find the probability that his or her birthday is not in May. Ignore leap years. 27) _____

- A) $\frac{334}{365}$ B) $\frac{11}{12}$ C) $\frac{31}{334}$ D) $\frac{31}{365}$

28) The chart below gives the number of vehicle tags sold in each city. 28) _____

City	Number of Vehicle Tags Sold
Bristol	1,863
Trevor	3507
Camp Lake	2,457
Salem	1773
Paddock Lake	2,541

One car is selected at random from the cars with vehicle tags from these cities. What is the probability that this car is from Salem? (Round your answer to four decimal places.)

- A) 0.1710 B) 0.2078 C) 0.1460 D) 0.1523

29) The chart below gives the cost and number of vehicle tags sold in each city. 29) _____

City	Cost of Vehicle Tag	Number of Vehicle Tags Sold
Bristol	\$8	1964
Trevor	\$10	3232
Camp Lake	\$7	2696
Salem	\$15	1847
Paddock Lake	\$12	2,541

One car is selected at random from the cars with vehicle tags from these cities. What is the probability that this car has a vehicle tag that cost less than \$10? (Round your answer to four decimal places)

- A) 0.6427 B) 0.6205 C) 0.3573 D) 0.3795

30) The distribution of B.A. degrees conferred by a local college is listed below, by major.

30) _____

Major	Number of Students
English	2073
Mathematics	2164
Chemistry	318
Physics	856
Liberal Arts	1358
Business	1676
Engineering	868
Total:	9313

What is the probability that a randomly selected degree is not in Mathematics?

A) 0.232

B) 0.303

C) 0.682

D) 0.768