Grade 3 Data and Probability Word Problems

Name: _____   **Date:** _____

1. Sarah recorded the colors of 20 marbles she randomly picked from a bag. She found 5 red, 7 blue, and 8 green marbles. What is the probability of picking a blue marble?

2. Tom flipped a coin 30 times and recorded the results. He got heads 15 times and tails 15 times. What is the probability of flipping a heads?

3. Emily surveyed 25 students about their favorite fruits. 10 students liked apples, 8 liked bananas, and the rest liked oranges. What is the probability that a student chosen at random likes oranges?

4. John rolled a six-sided die 40 times. He recorded the results and found that he rolled a 4 thirteen times, a 3 eight times, and the rest were other numbers. What is the probability of rolling a 4 on the next roll?

5. Amy conducted a survey in her class to find out how many students have pets. Out of 30 students, 15 have dogs, 7 have cats, and the rest have fish. What is the probability that a student chosen at random has a cat?

6. David has a bag of marbles with 15 red, 10 blue, and 5 green marbles. If he randomly picks one marble, what is the probability of picking a green marble?

7. Sarah recorded the types of transportation used by 25 students to come to school. 10 students came by bus, 8 by car, and the rest walked. What is the probability that a student chosen at random walked to school?

8. Tom has a jar with 30 candies. 10 are chocolate, 12 are strawberry, and the rest are mint. If he picks one candy randomly, what is the probability of picking a mint candy?

9. Emily conducted a survey on the favorite seasons of 20 people. 6 people liked summer, 8 liked winter, and the rest liked spring. What is the probability that a person chosen at random likes spring?

10. John flipped a coin 50 times and recorded the results. He got heads 25 times and tails 25 times. What is the probability of flipping a tails?

11. Amy surveyed 35 students about their favorite sports. 15 students liked soccer, 10 liked basketball, and the rest liked baseball. What is the probability that a student chosen at random likes baseball?

12. David has a bag with 20 marbles. 8 are yellow, 6 are blue, and the rest are red. If he picks one marble randomly, what is the probability of picking a red marble?

13. Sarah recorded the favorite ice cream flavors of 30 people. 12 people liked chocolate, 10 liked vanilla, and the rest liked strawberry. What is the probability that a person chosen at random likes strawberry ice cream?

14. Tom conducted a survey in his class to find out how many students prefer reading. Out of 25 students, 15 prefer reading, 5 prefer drawing, and the rest prefer playing. What is the probability that a student chosen at random prefers playing?

15. Emily has a jar with 25 candies. 10 are sour, 8 are sweet, and the rest are mint. If she picks one candy randomly, what is the probability of picking a sweet candy?

16. John surveyed 40 people about their favorite colors. 15 people liked blue, 10 liked green, and the rest liked red. What is the probability that a person chosen at random likes red?

17. Amy has a bag with 18 marbles. 6 are black, 8 are white, and the rest are gray. If she picks one marble randomly, what is the probability of picking a gray marble?

18. David conducted a survey in his class to find out how many students enjoy math. Out of 30 students, 12 enjoy math, 8 enjoy science, and the rest enjoy art. What is the probability that a student chosen at random enjoys art?

19. Sarah has a bag with 12 balls. 4 are red, 6 are blue, and the rest are green. If she picks one ball randomly, what is the probability of picking a green ball?

20. Tom surveyed 45 people about their favorite movies. 20 people liked action, 10 liked comedy, and the rest liked drama. What is the probability that a person chosen at random likes drama?

21. Emily has a jar with 20 candies. 8 are chocolate, 6 are strawberry, and the rest are mint. If she picks one candy randomly, what is the probability of picking a mint candy?

22. John surveyed 30 people about their favorite subjects in school. 12 people liked math, 8 liked science, and the rest liked English. What is the probability that a person chosen at random likes English?

23. Amy has a bag with 15 marbles. 5 are yellow, 6 are blue, and the rest are red. If she picks one marble randomly, what is the probability of picking a red marble?

24. David conducted a survey in his class to find out how many students enjoy sports. Out of 25 students, 10 enjoy soccer, 8 enjoy basketball, and the rest enjoy swimming. What is the probability that a student chosen at random enjoys swimming?

25. Sarah has a bag with 16 balls. 6 are red, 8 are blue, and the rest are green. If she picks one ball randomly, what is the probability of picking a green ball?

26. Tom surveyed 35 people about their favorite seasons. 15 people liked summer, 10 liked winter, and the rest liked fall. What is the probability that a person chosen at random likes fall?

27. Emily has a jar with 30 candies. 12 are sour, 10 are sweet, and the rest are mint. If she picks one candy randomly, what is the probability of picking a mint candy?

28. John conducted a survey in his class to find out how many students enjoy music. Out of 40 students, 15 enjoy rock, 10 enjoy pop, and the rest enjoy classical. What is the probability that a student chosen at random enjoys classical music?

29. Amy has a bag with 20 marbles. 8 are yellow, 6 are blue, and the rest are red. If she picks one marble randomly, what is the probability of picking a blue marble?

30. David surveyed 50 people about their favorite foods. 20 people liked pizza, 15 liked burgers, and the rest liked pasta. What is the probability that a person chosen at random likes pasta?