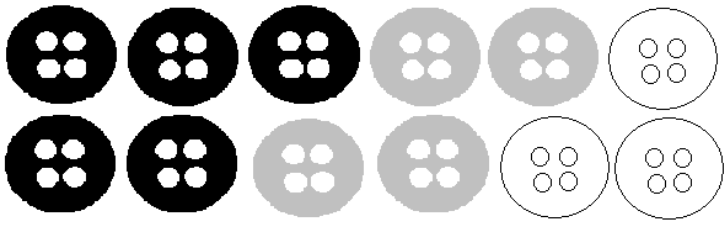
Name _____Period _____SCORE:_____/_____=_____%=_____

HW9-6: Independent & Dependent Events

Write ALL ANSWERS as SIMPLIFIED FRACTIONS!
Refer to the buttons on the right to find the probability of each outcome.

Each button <u>is replaced</u>.



1. P(a white button twice)

2. P(a gray button twice)

3. P(a gray button, then a white button)

4. P(a white button, then a black button)

5. P(a black button twice)

6. P(a black button, then a gray button)

Refer to the buttons shown above to find the probability of each outcome. Each button is <u>NOT</u> replaced during the problem but each questions starts with all the buttons.

7. P(a white button twice)

8. P(a gray button twice)

9. P(a gray button, then a white button)

10. P(a white button, then a black button)

11. P(a black button twice)

12. P(a black button, then a gray button)

Mrs. Ameldo's class has 5 students with blue eyes, 7 with brown eyes, 4 with hazel eyes, and 4 with green eyes. Two students are selected at random. Find each probability.

13. P(green then brown)

14. P(two blue)

15. P(hazel then blue)

16. P(brown then blue)

In a bag, there are 4 red marbles, 6 white marbles, 3 blue marbles, and 7 green marbles. Once a marble is selected, it is <u>not</u> replaced (for that problem). Find the probability of each outcome.

17. P(a blue, then a green)

18. P(a blue, then a red)

19. P(2 red in a row)

20. P(2 green in a row)

21. P(a red three times in a row)

22. P(white, blue, white)

23. P(blue, red, green)

24. P(blue, blue, blue)

A number cube is rolled and a marble is selected at random from a bag containing 2 red, 2 yellow, 2 green, 1 blue and 1 purple marble. Find the following probability. Marbles are <u>REPLACED</u>.

25. P(one and red)

26. P(three and purple)

27. P(Less than six and yellow)

28. P(odd and not green)

29. A carnival game wheel has 12 equal sections. Two of the sections contain a star. To win a prize, players must land on the section with the star on two consecutive spins. What is the probability of a player winning?

Review: Solve each proportion.

30. $\frac{3}{5} = \frac{x}{72}$

31. $\frac{8}{n} = \frac{0.5}{0.9}$

32. $\frac{2}{3} = \frac{x}{153}$

33. $\frac{0.2}{a} = \frac{1.8}{27}$

34. 9 is 15% of what number?

35. 57 out of 63 is what percent?