

Probability of Simple Events

A box contains 6 black crayons, 4 blue crayons, 5 red crayons, 3 yellow crayons, and 2 white crayons. One crayon is chosen at random. Find the probability of the following:

1. $P(\text{black}) = \underline{\hspace{2cm}}$
2. $P(\text{blue}) = \underline{\hspace{2cm}}$
3. $P(\text{not white}) = \underline{\hspace{2cm}}$
4. $P(\text{pink}) = \underline{\hspace{2cm}}$
5. $P(\text{black or blue}) = \underline{\hspace{2cm}}$
6. $P(\text{blue, red, or yellow}) = \underline{\hspace{2cm}}$

A bag contains 4 black, 8 red, 5 orange, and 7 green jellybeans. A student selects one jellybean at random. Find the probability of the following:

7. $P(\text{red}) = \underline{\hspace{2cm}}$
8. $P(\text{not green}) = \underline{\hspace{2cm}}$
9. $P(\text{black or orange}) = \underline{\hspace{2cm}}$
10. $P(\text{blue}) = \underline{\hspace{2cm}}$
11. $P(\text{not yellow}) = \underline{\hspace{2cm}}$
12. $P(\text{red, green or orange}) = \underline{\hspace{2cm}}$

Numbers from 1 to 30 are painted on ping pong balls and mixed by a machine. One ball is selected at random. Find the probability of the following:

1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30

13. $P(\text{odd \#}) = \underline{\hspace{2cm}}$
14. $P(\text{one-digit \#}) = \underline{\hspace{2cm}}$
15. $P(\text{negative \#}) = \underline{\hspace{2cm}}$
16. $P(\text{ending in 0}) = \underline{\hspace{2cm}}$
17. $P(\text{divisible by 6}) = \underline{\hspace{2cm}}$
18. $P(\text{two-digit \#}) = \underline{\hspace{2cm}}$
19. $P(1 \text{ or } 30) = \underline{\hspace{2cm}}$
20. $P(\text{greater than 17 but less than 26}) = \underline{\hspace{2cm}}$

Each letter of the word *probabilities* is written on a slip of paper and shuffled in a bowl. A student selects one slip of paper at random. Find the probability of the following:

21. $P(\text{b}) = \underline{\hspace{2cm}}$
22. $P(\text{not a}) = \underline{\hspace{2cm}}$
23. $P(\text{u}) = \underline{\hspace{2cm}}$
24. $P(\text{vowel}) = \underline{\hspace{2cm}}$
25. $P(\text{i or l}) = \underline{\hspace{2cm}}$
26. $P(\text{not p or b}) = \underline{\hspace{2cm}}$

27. What is the probability of rolling a number divisible by 2 on a number cube? $\underline{\hspace{2cm}}$

28. What is the probability that a month picked at random ends with the letter y? $\underline{\hspace{2cm}}$