SASKATCHEWAN FOUNDATIONS OF MATHEMATICS 30 · UNIT C · 25 QUESTIONS

Counting Methods and Probability — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **A bag holds 12 different marbles. The number of ways to choose 2 marbles is**



ANSWER

Understand It with Pulse | Flag a mistake

2 **Two events are independent with probabilities $\frac{1}{2}$ and $\frac{1}{2}$. The probability both occur is**

ANSWER

Understand It with Pulse | Flag a mistake

3 **Two mutually exclusive events have probabilities $\frac{1}{6}$ and $\frac{1}{3}$. The probability one or the other occurs is**

ANSWER

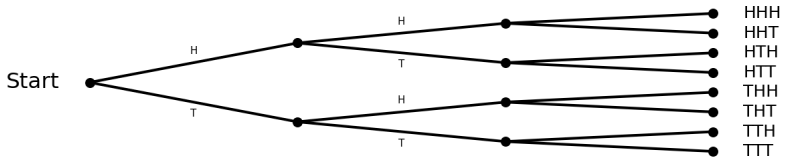
Understand It with Pulse | Flag a mistake

4 **Two mutually exclusive events have probabilities $\frac{1}{2}$ and $\frac{1}{4}$. The probability one or the other occurs is**

ANSWER

Understand It with Pulse | Flag a mistake

5 **The tree diagram shows all outcomes of tossing a coin 3 times. The number of possible outcomes is**



ANSWER

Understand It with Pulse

Flag a mistake

6 **A spinner has 4 equal sections: red, blue, green and yellow. The probability of landing on red is $\frac{1}{4}$ and on blue is $\frac{1}{4}$. The probability of landing on red or blue is**



ANSWER

Understand It with Pulse | Flag a mistake

7 **The number of combinations of 11 objects taken 4 at a time is**

ANSWER

Understand It with Pulse | Flag a mistake

8 **The number of ways to arrange 9 different books in a row is**

ANSWER _____

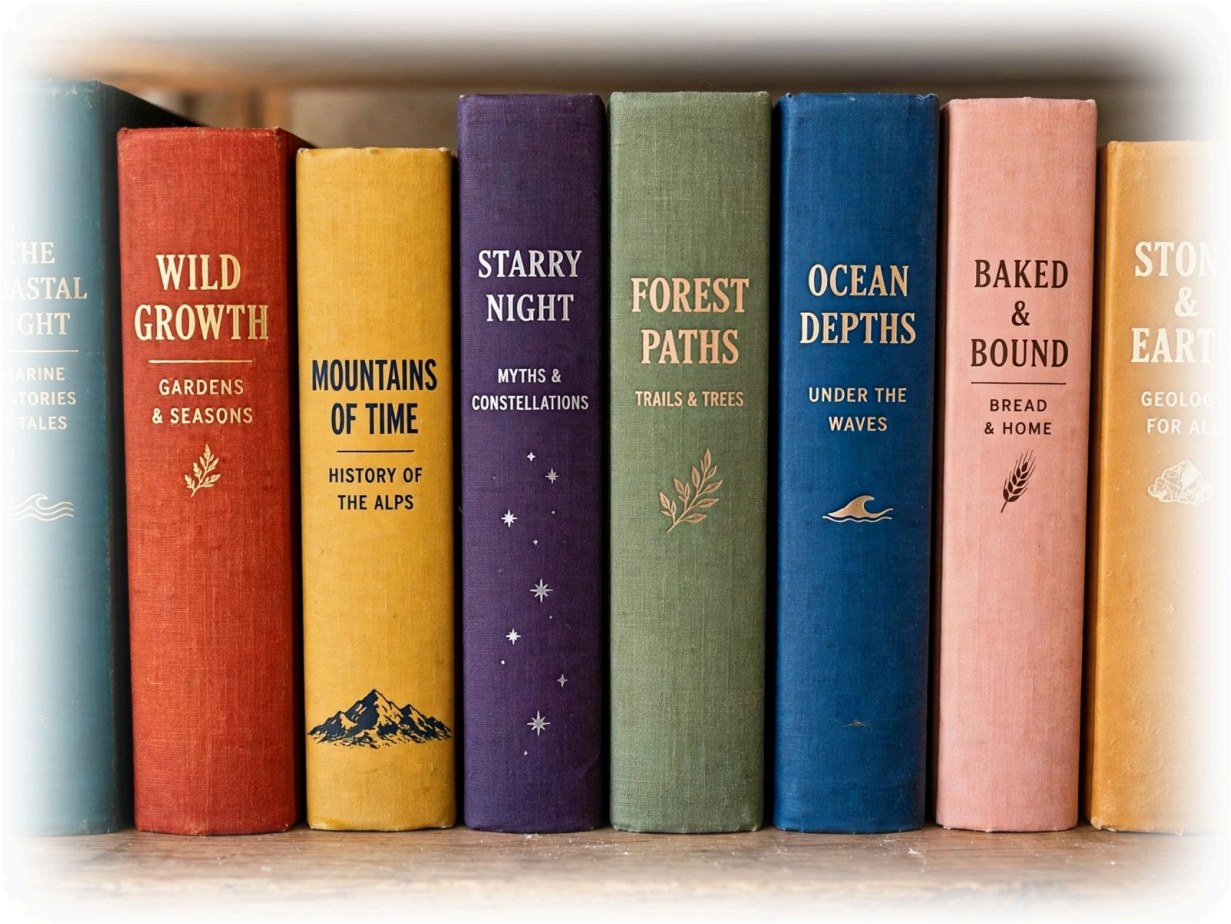
Understand It with Pulse | Flag a mistake

9 **The number of ways to arrange 4 different books in a row is**

ANSWER _____

Understand It with Pulse | Flag a mistake

10 The number of ways to arrange 5 different books in a row is



ANSWER

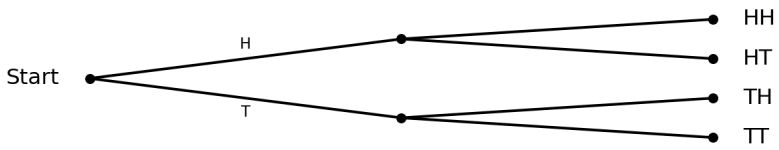
Understand It with Pulse | Flag a mistake

11 The number of combinations of 7 objects taken 2 at a time is

ANSWER

Understand It with Pulse | Flag a mistake

12 **The tree diagram shows all outcomes of tossing a coin 2 times. The number of possible outcomes is**



ANSWER

Understand It with Pulse | Flag a mistake

13 **The number of permutations of 10 objects taken 3 at a time is**

ANSWER

Understand It with Pulse | Flag a mistake

14 **The number of ways to arrange 3 different flags in a row is**

ANSWER

Understand It with Pulse | Flag a mistake

15 A card is drawn from a standard deck, replaced, and a second card is drawn. The probability that a card drawn is a heart is $\frac{1}{4}$. The probability both cards are hearts is



ANSWER _____

Understand It with Pulse | Flag a mistake

16 A password uses 4 different letters chosen from A, B, C, D, E. The number of possible passwords is

ANSWER _____

Understand It with Pulse | Flag a mistake

17 **Two events are independent with probabilities $\frac{1}{2}$ and $\frac{1}{4}$. The probability both occur is**

ANSWER _____

Understand It with Pulse | Flag a mistake

18 **Five runners finish a race with no ties. The number of possible orders for the first three places is**

ANSWER _____

Understand It with Pulse | Flag a mistake

19 **A committee of 3 is chosen from 6 people. The number of different committees is**

ANSWER _____

Understand It with Pulse | Flag a mistake

20 **The number of ways to arrange 3 different flags chosen from 11 flags in a row is**



ANSWER

Understand It with Pulse | Flag a mistake

21 **A pizza shop offers 5 toppings and a customer chooses 2. The number of different pairs of toppings is**

ANSWER

Understand It with Pulse | Flag a mistake

22 **The number of permutations of 9 objects taken 4 at a time is**

ANSWER _____

Understand It with Pulse | Flag a mistake

23 **From a deck, the number of different 2 card hands is**

ANSWER _____

Understand It with Pulse | Flag a mistake

24 **A die is rolled. The probability of rolling a 2 or a 5 is**

A 1

B 1

C 1

D 2

Understand It with Pulse | Flag a mistake

25 **A coin is tossed twice. The probability of two heads in a row is**



A 1

B 1

C 1

D 3

Understand It with Pulse | Flag a mistake

ANSWER KEY

1. 66
2. 0.25
3. 0.5
4. 0.75
5. 8
6. 0.5
7. 330
8. 362880
9. 24
10. 120
11. 21
12. 4
13. 720
14. 6
15. 0.06
16. 120
17. 0.12
18. 60
19. 20
20. 990
21. 10
22. 3024
23. 1326
24. B
25. B

© 2026 Brett Robbins. All Rights Reserved.