MATHEMATICS 3200 · NEWFOUNDLAND AND LABRADOR

Mathematics 3200

Practice Test

Unit E: Combinatorics

25 Questions

Original practice test based on the Newfoundland and Labrador curriculum. Work through each question, then check your answers at the end.

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.

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Question 1

$5!$ is

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Question 2

$6!$ is

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Question 3

$4!$ is

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Question 4

$P(8,\ 3)$ is

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Question 5

$P(10,\ 2)$ is

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Question 6

$P(7,\ 4)$ is

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Question 7

$P(9,\ 3)$ is

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Question 8

$C(10,\ 3)$ is

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Question 9

$C(8,\ 2)$ is

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Question 10

$C(12,\ 4)$ is

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Question 11

$C(9,\ 5)$ is

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Question 12

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

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Question 13

The number of ways to arrange 7 different books in a row is

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Question 14

The number of ways to arrange 6 different books in a row is

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Question 15

A student owns 4 shirts and 3 pairs of pants. The number of different outfits is

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Question 16

A student owns 5 shirts and 3 pairs of pants. The number of different outfits is

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Question 17

A student owns 6 shirts and 4 pairs of pants. The number of different outfits is

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Question 18

The number of ways to choose a president and a vice president from 12 students is

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Question 19

The number of ways to choose a president and a vice president from 15 students is

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Question 20

The number of different committees of 3 people that can be chosen from 20 people is

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Question 21

The number of different committees of 2 people that can be chosen from 30 people is

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Question 22

The coefficient of x^2 in the expansion of $(x + 2)^5$ is

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Question 23

The coefficient of x^3 in the expansion of $(x + 2)^6$ is

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Question 24

The probability of drawing an ace from a standard deck is

A) $\frac{1}{13}$

B) $\frac{1}{4}$

C) $\frac{1}{2}$

D) $\frac{1}{52}$

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Question 25

A card is drawn from a standard deck. The probability it is a heart is

A) $\frac{1}{2}$

B) $\frac{1}{4}$

C) $\frac{1}{13}$

D) $\frac{1}{52}$

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ANSWER KEY

1. 120
2. 720
3. 24
4. 336
5. 90
6. 840
7. 504
8. 120
9. 28
10. 495
11. 126
12. 120
13. 5040
14. 720
15. 12
16. 15
17. 24
18. 132
19. 210
20. 1140
21. 435
22. 80
23. 160
24. A
25. B

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