QUEBEC MATHEMATICS, TECHNICAL AND SCIENTIFIC OPTION, SECONDARY IV · UNIT D · 25 QUESTIONS

Probability — Practice Test

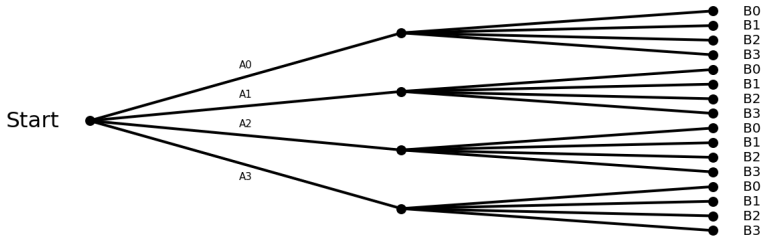
This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **A bag has 3 red marbles and 9 blue marbles. The probability of drawing a red marble is**

- **A** $\frac{1}{4}$
- **B** $\frac{1}{2}$
- **C** $\frac{1}{3}$
- **D** $\frac{2}{5}$

Understand It with Pulse | Flag a mistake

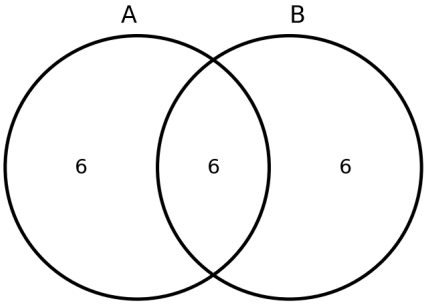
2 **A tree diagram has 4 first branches and each splits into 4 branches. The number of outcomes is**



ANSWER

Understand It with Pulse | Flag a mistake

3 **The diagram shows sets A and B with 6 in A only 6 in both and 6 in B only. The number in A or B is**



ANSWER

Understand It with Pulse | Flag a mistake

4 A coin is tossed 3 times. The number of possible outcomes is

ANSWER _____

Understand It with Pulse | Flag a mistake

5 A quality check finds 9 defective parts out of 300. The number of good parts is

ANSWER _____

Understand It with Pulse | Flag a mistake

6 An event has 1 favourable outcome out of 7 equally likely outcomes. Its probability is

A $\frac{1}{7}$

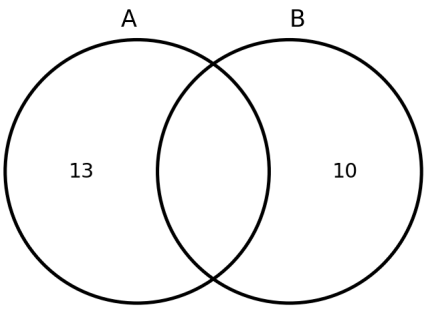
B $\frac{1}{6}$

C $\frac{1}{3}$

D $\frac{1}{2}$

Understand It with Pulse | Flag a mistake

7 **The diagram shows sets A and B with 13 in A only and 10 in B only. There are 27 in total. The number in both A and B is**



ANSWER _____

Understand It with Pulse | Flag a mistake

8 **A bag has 50 marbles and 11 are red. The number that are not red is**

ANSWER _____

Understand It with Pulse | Flag a mistake

9 An event has 3 favourable outcomes out of 5 equally likely outcomes. Its probability is

- **A** $\frac{1}{6}$
- **B** $\frac{3}{5}$
- **C** $\frac{1}{3}$
- **D** $\frac{1}{2}$

Understand It with Pulse | Flag a mistake

10 An event with probability one half has a prize of 120 dollars. Its expected value in dollars is

ANSWER _____

Understand It with Pulse | Flag a mistake

11 An event with probability one quarter has a prize of 220 dollars. Its expected value in dollars is

ANSWER _____

Understand It with Pulse | Flag a mistake

12 **An event with probability one sixth has a prize of 140 dollars. Its expected value in dollars is**

ANSWER _____

Understand It with Pulse | Flag a mistake

13 **An event with probability three quarters has a prize of 100 dollars. Its expected value in dollars is**

ANSWER _____

Understand It with Pulse | Flag a mistake

14 **The number of combinations of 8 items taken 3 at a time is**

ANSWER _____

Understand It with Pulse | Flag a mistake

15 **The number of permutations of 6 items taken 2 at a time is**

ANSWER _____

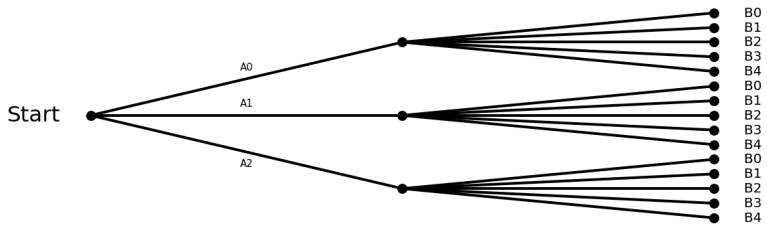
Understand It with Pulse | Flag a mistake

16 **A bag has 5 red marbles and 7 blue marbles. The probability of drawing a red marble is**

- **A** $\frac{5}{12}$
- **B** $\frac{1}{2}$
- **C** $\frac{1}{3}$
- **D** $\frac{2}{5}$

Understand It with Pulse | Flag a mistake

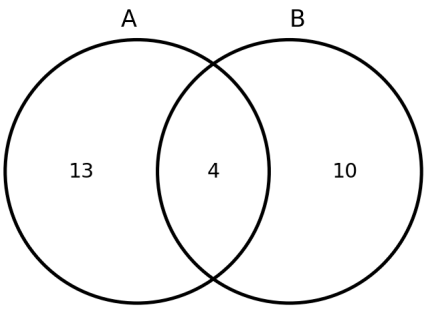
17 **A tree diagram has 3 first branches and each splits into 5 branches. The number of outcomes is**



ANSWER _____

Understand It with Pulse | Flag a mistake

18 **The diagram shows sets A and B with 13 in A only 4 in both and 10 in B only. The number in A or B is**



ANSWER

Understand It with Pulse | Flag a mistake

19 **A coin is tossed 4 times. The number of possible outcomes is**

ANSWER

Understand It with Pulse | Flag a mistake

20 **A quality check finds 26 defective parts out of 600. The number of good parts is**

ANSWER

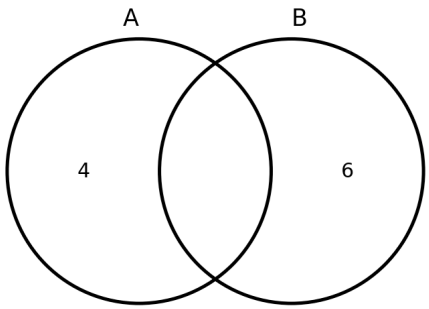
Understand It with Pulse | Flag a mistake

21 **An event has 1 favourable outcome out of 3 equally likely outcomes. Its probability is**

- **A** $\frac{1}{3}$
- **B** $\frac{1}{6}$
- **C** $\frac{1}{2}$
- **D** $\frac{2}{3}$

Understand It with Pulse | Flag a mistake

22 **The diagram shows sets A and B with 4 in A only and 6 in B only. There are 15 in total. The number in both A and B is**



ANSWER _____

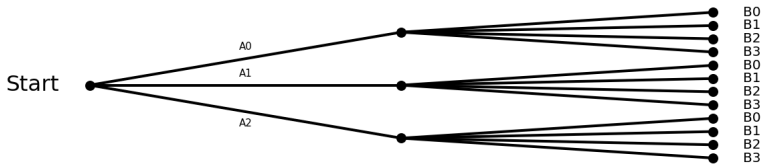
Understand It with Pulse | Flag a mistake

23 **A bag has 6 red marbles and 6 blue marbles. The probability of drawing a red marble is**

- **A** $\frac{1}{3}$
- **B** $\frac{1}{2}$
- **C** $\frac{2}{5}$
- **D** $\frac{3}{5}$

Understand It with Pulse | Flag a mistake

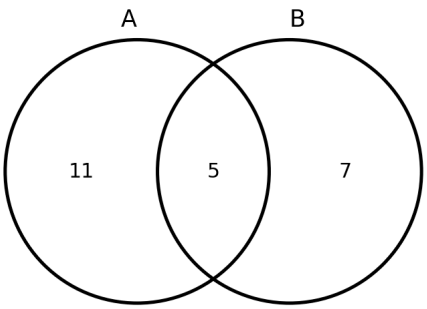
24 **A tree diagram has 3 first branches and each splits into 4 branches. The number of outcomes is**



ANSWER _____

Understand It with Pulse | Flag a mistake

25 **The diagram shows sets A and B with 11 in A only 5 in both and 7 in B only. The number in A or B is**



ANSWER

Understand It with Pulse | Flag a mistake

ANSWER KEY

1. A
2. 16
3. 18
4. 8
5. 291
6. A
7. 4
8. 39
9. B
10. 60
11. 55
12. 23.33
13. 75
14. 56
15. 30
16. A
17. 15
18. 27
19. 16
20. 574
21. A
22. 5
23. B
24. 12
25. 23

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