SASKATCHEWAN PRE-CALCULUS 30 · FINAL EXAM · 50 QUESTIONS

Final Exam — 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 **For an angle of 270 degrees in standard position, sin theta is**

- A 1
- B $\sqrt{3}/2$
- C -1/2
- D -1

Understand It with Pulse | Flag a mistake

2 **If f(x) = 2x + 5 and g(x) = x + 4, then (f + g)(3) is**

ANSWER _____

Understand It with Pulse | Flag a mistake

3 **Solve : $3^x = 9$. The value of x is**

ANSWER _____

Understand It with Pulse | Flag a mistake

4 The domain of y = the square root of x - 3 is

- **A** x > 3
- **B** x ≥ 3
- **C** x ≤ 3
- **D** x ≥ -3

Understand It with Pulse | Flag a mistake

5 In the expansion of $(x + y)^{10}$, the number of terms is

ANSWER _____

Understand It with Pulse | Flag a mistake

6 **The exact value of tan 60 degrees is**

- A $\sqrt{3}$
- B $-\sqrt{3}$
- C $-\sqrt{3}/3$
- D 0

Understand It with Pulse | Flag a mistake

7 **If f(x) = x² + 1 and g(x) = 2x , then f(g(6)) is**

ANSWER _____

Understand It with Pulse | Flag a mistake

8 **Evaluate log base 3 of 81.**

ANSWER _____

Understand It with Pulse | Flag a mistake

9 The function y = 1/x - 9 has a vertical asymptote at x equals

- A 9
- B -9
- C 0
- D 10

Understand It with Pulse | Flag a mistake

10 A committee of 3 is chosen from 6 people. The number of possible committees is

ANSWER _____

Understand It with Pulse | Flag a mistake

11 The identity $\sin^2 \theta + \cos^2 \theta$ equals

- A 0
- B 2
- C 1
- D $\sin \theta$

Understand It with Pulse | Flag a mistake

12 If $f(x) = 2x + 4$ and $g(x) = x + 3$, then $(f + g)(6)$ is

ANSWER _____

Understand It with Pulse | Flag a mistake

13 Solve : log base 3 of $x = 2$. The value of x is

ANSWER _____

Understand It with Pulse | Flag a mistake

14 **The function y = 1/x - 5 has a vertical asymptote at x equals**

A -5

B 0

C 5

D 6

Understand It with Pulse | Flag a mistake

15 **The number of combinations of 15 objects taken 5 at a time is**

ANSWER _____

Understand It with Pulse | Flag a mistake

16 The exact value of cos 150 degrees is

- A -1/2
- B $\frac{1}{2}$
- C 0
- D $-\sqrt{3}/2$

Understand It with Pulse | Flag a mistake

17 If f(x) = x + 1 and g(x) = 5x, then g(f(3)) is

ANSWER _____

Understand It with Pulse | Flag a mistake

18 Solve : $10^x = 1000$. The value of x is

ANSWER _____

Understand It with Pulse | Flag a mistake

19 **A polynomial of degree 4 has at most how many x-intercepts**

ANSWER _____

Understand It with Pulse | Flag a mistake

20 **A president and a secretary are chosen from 8 people, with no person holding both roles. The number of ways is**

ANSWER _____

Understand It with Pulse | Flag a mistake

21 **An angle coterminal with 60 degrees is**

A 420°

B -300°

C 300°

D 120°

Understand It with Pulse | Flag a mistake

22 **If f(x) = x + 5 and g(x) = 2x, then g(f(6)) is**

ANSWER _____

Understand It with Pulse | Flag a mistake

23 **Evaluate log base 2 of 4.**

ANSWER _____

Understand It with Pulse | Flag a mistake

24 **The function y = 1/x - 3 has a vertical asymptote at x equals**

A -3

B 3

C 0

D 4

Understand It with Pulse | Flag a mistake

25 **The number of permutations of 10 objects taken 2 at a time is**

ANSWER _____

Understand It with Pulse | Flag a mistake

26 **The exact value of sin 135 degrees is**

A 1

B $-\sqrt{2}/2$

C $\sqrt{2}/2$

D $\sqrt{3}/2$

Understand It with Pulse | Flag a mistake

27 **If f(x) = 2x + 3 and g(x) = x + 2, then (f + g)(4) is**

ANSWER _____

Understand It with Pulse | Flag a mistake

28 **Evaluate log base 4 of 16.**

ANSWER _____

Understand It with Pulse | Flag a mistake

29 **The function y = 1/x - 8 has a vertical asymptote at x equals**

A -8

B 8

C 0

D 9

Understand It with Pulse | Flag a mistake

30 **In the expansion of $(x + y)^4$, the number of terms is**

ANSWER _____

Understand It with Pulse | Flag a mistake

31 For an angle of 360 degrees in standard position, sin theta is

- A $-\sqrt{2}/2$
- B $\sqrt{3}/2$
- C 0
- D $\sqrt{2}/2$

Understand It with Pulse | Flag a mistake

32 If f(x) = 2x + 2 and g(x) = x + 3, then (f + g)(2) is

ANSWER _____

Understand It with Pulse | Flag a mistake

33 **Using logarithm laws, log 8 minus log 2 equals**

- A log 16
- B log 10
- C log 4
- D log 6

Understand It with Pulse | Flag a mistake

34 **For P(x) = x^2 + 4 , the value P(-6) is**

ANSWER _____

Understand It with Pulse | Flag a mistake

35 **A committee of 3 is chosen from 7 people. The number of possible committees is**

ANSWER _____

Understand It with Pulse | Flag a mistake

36 **The exact value of sin 120 degrees is**

- A $\sqrt{3}/2$
- B $-\sqrt{2}/2$
- C $\frac{1}{2}$
- D 1

Understand It with Pulse | Flag a mistake

37 **The graph of $y = (x - 4)^2$ is the graph of $y = x^2$ shifted**

- A 4 units left
- B 4 units up
- C 4 units right
- D 4 units down

Understand It with Pulse | Flag a mistake

38 **Evaluate log base 5 of 625.**

ANSWER _____

Understand It with Pulse | Flag a mistake

39 **Solve : the square root of x = 9 . The value of x is**

ANSWER _____

Understand It with Pulse | Flag a mistake

40 **In the expansion of $(1 + x)^{12}$, the coefficient of x^2 is**

ANSWER _____

Understand It with Pulse | Flag a mistake

41 **An angle coterminal with 30 degrees is**

A -330°

B 330°

C 150°

D 390°

Understand It with Pulse | Flag a mistake

42 **If f(x) = 2x + 2 and g(x) = x + 5, then (f + g)(4) is**

ANSWER _____

Understand It with Pulse | Flag a mistake

43 **Evaluate log base 10 of 1000.**

ANSWER _____

Understand It with Pulse | Flag a mistake

44 For P(x) = x^2 + 3 , the value P(-2) is

ANSWER

Understand It with Pulse | Flag a mistake

45 In the expansion of (1 + x)^8 , the coefficient of x^5 is

ANSWER

Understand It with Pulse | Flag a mistake

46 The reference angle for 170 degrees is

A 170°

B 10°

C 80°

D 90°

Understand It with Pulse | Flag a mistake

47 **If f(x) = x² + 3 and g(x) = 5x , then f(g(6)) is**

ANSWER _____

Understand It with Pulse | Flag a mistake

48 **Using logarithm laws, log 9 minus log 3 equals**

A log 27

B log 3

C log 12

D log 6

Understand It with Pulse | Flag a mistake

49 **By the factor theorem, x minus 5 is a factor of P(x) if**

- **A** P of 5 equals 1
- **B** P of 0 equals 5
- **C** the degree is 5
- **D** P of 5 equals 0

Understand It with Pulse | Flag a mistake

50 **In the expansion of $(1 + x)^5$, the coefficient of x^2 is**

ANSWER _____

Understand It with Pulse | Flag a mistake

ANSWER KEY

1. D
2. 18
3. 2
4. B
5. 11
6. A
7. 145
8. 4
9. A
10. 20
11. C
12. 25
13. 9
14. C
15. 3003
16. D
17. 20
18. 3
19. 4
20. 56
21. A
22. 22
23. 2
24. B
25. 90
26. C
27. 17
28. 2
29. B
30. 5
31. C
32. 11
33. C
34. 40
35. 35
36. A
37. C
38. 4
39. 81
40. 66
41. D
42. 19
43. 3
44. 7
45. 56
46. B
47. 903
48. B
49. D
50. 10

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