SASKATCHEWAN PRE-CALCULUS 20 · 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 **An arithmetic sequence starts 9 with common difference 5. The term in position 10 is**

ANSWER _____

Understand It with Pulse | Flag a mistake

2 **A triangle has sides 3 and 10 with an included angle of 60 degrees. The third side is approximately**

- A 9.9
- B 7.9
- C 8.9
- D 13

Understand It with Pulse | Flag a mistake

3 **The vertex of $y = (x + 2)^2 + 2$ is**

A (2, 2)

B (-2, 2)

C (-2, -2)

D (2, -2)

Understand It with Pulse | Flag a mistake

4 **Solve: $\frac{x}{8} = 8$. The value of x is**

ANSWER _____

Understand It with Pulse | Flag a mistake

5 The domain of $y = \frac{1}{x}$ excludes

- **A** 1
- **B** -1
- **C** 0
- **D** 2

Understand It with Pulse | Flag a mistake

6 The inequality $x^2 - 1 < 0$ has solution

- **A** $x < -1$
- **B** $-1 < x < 1$
- **C** $x > 1$
- **D** $-2 < x < 2$

Understand It with Pulse | Flag a mistake

7 **An arithmetic sequence starts 2 with common difference -6. The term in position 8 is**

ANSWER _____

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8 **The value of sin 150 degrees is**

A $\sqrt{3}/2$

B 1

C $\frac{1}{2}$

D 0

Understand It with Pulse | Flag a mistake

9 **The roots of (x + 4)(x + 3) = 0 are**

A 4 and 3

B -4 and 3

C -4 and -3

D 4 and -3

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10 **Solve : the square root of x = 2 . The value of x is**

ANSWER _____

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11 **The solutions of |x - 9| = 3 are**

- A 12 and 6
- B 12 and -12
- C 12
- D -6 and -12

Understand It with Pulse | Flag a mistake

12 **The solution of the system x + y = -3 and x - y = 1 is**

- A (-2, -1)
- B (0, -2)
- C (-1, -1)
- D (-1, -2)

Understand It with Pulse | Flag a mistake

13 **A geometric sequence starts 2 with common ratio 2. The sum of the first 4 terms is**

ANSWER _____

Understand It with Pulse | Flag a mistake

14 **A triangle has sides 6 and 8 with an included angle of 60 degrees. The third side is approximately**

A 7.2

B 8.2

C 6.2

D 14

Understand It with Pulse | Flag a mistake

15 **The quadratic $3x^2 - 1x - 5 = 0$ has**

- A two real roots
- B one real root
- C no real roots
- D two complex roots

Understand It with Pulse | Flag a mistake

16 **In simplest form, $\frac{x^9}{x^3}$ is**

- A x^9
- B x^6
- C x^3
- D x^12

Understand It with Pulse | Flag a mistake

17 **The solutions of |x - 7| = 8 are**

A 15 and -1

B 15 and -15

C 15

D 1 and -15

Understand It with Pulse | Flag a mistake

18 **The solution of the system x + y = -4 and x - y = 6 is**

A (1, -5)

B (-5, 1)

C (2, -5)

D (1, -4)

Understand It with Pulse | Flag a mistake

19 **A geometric sequence starts 7 with common ratio 3. The sum of the first 4 terms is**

ANSWER _____

Understand It with Pulse | Flag a mistake

20 **An angle of 290 degrees is coterminal with**

A 650°

B 70°

C 290°

D -70°

Understand It with Pulse | Flag a mistake

21 **The quadratic $2x^2 + 3x - 5 = 0$ has**

- **A** one real root
- **B** two real roots
- **C** no real roots
- **D** two complex roots

Understand It with Pulse | Flag a mistake

22 **In simplest form, $\frac{x^7}{x^4}$ is**

- **A** x^7
- **B** x^4
- **C** x^3
- **D** x^11

Understand It with Pulse | Flag a mistake

23 The function $y = 1/x - 2$ has a vertical asymptote at x equals

- A -2
- B 2
- C 0
- D 3

Understand It with Pulse | Flag a mistake

24 The inequality $x^2 - 25 < 0$ has solution

- A $-5 < x < 5$
- B $x < -5$
- C $x > 5$
- D $-6 < x < 6$

Understand It with Pulse | Flag a mistake

25 **An arithmetic sequence starts 5 with common difference 5. The sum of the first 6 terms is**

ANSWER

Understand It with Pulse | Flag a mistake

26 **In a triangle , side a = 15 , angle A = 45 degrees and angle B = 30 degrees . Side b is approximately**

A 10.6

B 12.6

C 8.6

D 15

Understand It with Pulse | Flag a mistake

27 **The quadratic $2x^2 - 3x - 1 = 0$ has**

A two real roots

B one real root

C no real roots

D two complex roots

Understand It with Pulse | Flag a mistake

28 **Solve: $\frac{x}{6} = 6$. The value of x is**

ANSWER _____

Understand It with Pulse | Flag a mistake

29 **The solutions of |x| = 2 are**

A 2

B 2 and 3

C 2 and -2

D -2

Understand It with Pulse | Flag a mistake

30 **The solution of the system x + y = 1 and x - y = 5 is**

A (-2, 3)

B (4, -2)

C (3, -2)

D (3, -1)

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31 **An arithmetic sequence starts 7 with common difference 3. The term in position 12 is**

ANSWER

Understand It with Pulse | Flag a mistake

32 **In a triangle , side a = 15 , angle A = 30 degrees and angle B = 45 degrees . Side b is approximately**

A 21.2

B 23.2

C 19.2

D 15

Understand It with Pulse | Flag a mistake

33 **The roots of (x + 4)(x + 6) = 0 are**

- A 4 and 6
- B -4 and 6
- C -4 and -6
- D 4 and -6

Understand It with Pulse | Flag a mistake

34 **The non-permissible value for 1/x - 5 is x equals**

- A -5
- B 5
- C 0
- D 6

Understand It with Pulse | Flag a mistake

35 **The solutions of |x - 4| = 1 are**

- **A** 5 and -5
- **B** 5
- **C** 5 and 3
- **D** -3 and -5

Understand It with Pulse | Flag a mistake

36 **The solution of the system x + y = -6 and x - y = -4 is**

- **A** (-1, -5)
- **B** (-5, -1)
- **C** (-4, -1)
- **D** (-5, 0)

Understand It with Pulse | Flag a mistake

37 **An arithmetic sequence starts 9 with common difference 5. The sum of the first 5 terms is**

ANSWER _____

Understand It with Pulse | Flag a mistake

38 **The reference angle for 330 degrees is**

A 330°

B 150°

C 90°

D 30°

Understand It with Pulse | Flag a mistake

39 The vertex of $y = (x + 3)^2 + 4$ is

- A (3, 4)
- B (-3, -4)
- C (3, -4)
- D (-3, 4)

Understand It with Pulse | Flag a mistake

40 The non-permissible value for 1/x - 7 is x equals

- A -7
- B 0
- C 8
- D 7

Understand It with Pulse | Flag a mistake

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

A -3

B 0

C 4

D 3

Understand It with Pulse | Flag a mistake

42 **The system y = 2x + 1 and y = 17 is satisfied by x equals**

ANSWER _____

Understand It with Pulse | Flag a mistake

43 **A geometric sequence starts 5 with common ratio 2. The term in position 5 is**

ANSWER _____

Understand It with Pulse | Flag a mistake

44 **An angle of 225 degrees lies in quadrant**

A III

B I

C II

D IV

Understand It with Pulse | Flag a mistake

45 **Solve : $x^2 - 49 = 0$. The positive root is**

ANSWER _____

Understand It with Pulse | Flag a mistake

46 In simplest form, $\frac{x^{10}}{x^{6}}$ is

- A x^{10}
- B x^{4}
- C x^{6}
- D x^{16}

Understand It with Pulse | Flag a mistake

47 The solutions of $|x - 8| = 6$ are

- A 14 and 2
- B 14 and -14
- C 14
- D -2 and -14

Understand It with Pulse | Flag a mistake

48 **Solve: 2x + y = 14 and x + y = 10. The value of x is**

ANSWER _____

Understand It with Pulse | Flag a mistake

49 **A geometric sequence starts 6 with common ratio 2. The sum of the first 4 terms is**

ANSWER _____

Understand It with Pulse | Flag a mistake

50 **In a triangle , side a = 30 , angle A = 30 degrees and angle B = 45 degrees . Side b is approximately**

A 42.4

B 44.4

C 40.4

D 30

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ANSWER KEY

1.	54	**18.**	A	**35.**	C
2.	C	**19.**	280	**36.**	B
3.	B	**20.**	D	**37.**	95
4.	64	**21.**	B	**38.**	D
5.	C	**22.**	C	**39.**	D
6.	B	**23.**	B	**40.**	D
7.	-40	**24.**	A	**41.**	D
8.	C	**25.**	105	**42.**	8
9.	C	**26.**	A	**43.**	80
10.	4	**27.**	A	**44.**	A
11.	A	**28.**	36	**45.**	7
12.	D	**29.**	C	**46.**	B
13.	30	**30.**	C	**47.**	A
14.	A	**31.**	40	**48.**	4
15.	A	**32.**	A	**49.**	90
16.	B	**33.**	C	**50.**	A
17.	A	**34.**	B		

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