PRINCE EDWARD ISLAND PRE-CALCULUS 11 · UNIT D · 25 QUESTIONS

Radical and Rational Functions — 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 the radical function y = the square root of x - 3 , what is the smallest x value in its domain**

ANSWER _____

Understand It with Pulse | Flag a mistake

2 **A rational function has denominator x minus 3. At what x value is the function undefined**

ANSWER _____

Understand It with Pulse | Flag a mistake

3 **Simplifying the square root of 36 gives**

- A 6
- B 18
- C 12
- D 9

Understand It with Pulse | Flag a mistake

4 **What is the principal square root of 16**

ANSWER _____

Understand It with Pulse | Flag a mistake

5 **A rational function is undefined where its denominator is**

A one

B zero

C positive

D negative

Understand It with Pulse | Flag a mistake

6 **An extraneous solution is a value that appears during solving but**

A satisfies the original equation

B is always negative

C does not satisfy the original equation

D is always zero

Understand It with Pulse | Flag a mistake

7 **For the radical function $y = \sqrt{x - 2}$, what is the smallest x value in its domain**

ANSWER _____

Understand It with Pulse | Flag a mistake

8 **Multiplying numerator and denominator of a rational expression by the same nonzero value**

A changes its value

B does not change its value

C makes it zero

D makes it undefined

Understand It with Pulse | Flag a mistake

9 **Rational functions can have vertical asymptotes where the denominator is zero and the numerator is**

- A zero
- B not zero
- C one
- D negative

Understand It with Pulse | Flag a mistake

10 **Simplifying (x^2 - 4) / (x - 2) , for x not = 2 , gives**

- A x - 2
- B x + 4
- C x + 2
- D 2x

Understand It with Pulse | Flag a mistake

11 **The cube root of 27 is**

A 3

B 9

C 6

D 81

Understand It with Pulse | Flag a mistake

12 **The cube root of -8 is**

A 2

B -2

C -4

D 4

Understand It with Pulse | Flag a mistake

13 **The domain of a square root function requires the radicand to be**

A greater than or equal to zero

B less than zero

C equal to zero only

D any real number

Understand It with Pulse | Flag a mistake

14 **The domain of y = the square root of (x + 3) is**

A x greater than 3

B x less than -3

C all real numbers

D x greater than or equal to -3

Understand It with Pulse | Flag a mistake

15 The domain of y = 1 / (x + 4) excludes

- A x = 4
- B x = 0
- C x = -4
- D x = 1

Understand It with Pulse | Flag a mistake

16 The expression $\frac{1}{x}$ is undefined when x equals

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

Understand It with Pulse | Flag a mistake

17 The graph of y equals the square root of x starts at

- A the origin
- B (1, 1)
- C (-1, 0)
- D (0, 1)

Understand It with Pulse | Flag a mistake

18 The horizontal asymptote of $y = \frac{1}{x}$ is

- A x = 0
- B y = 1
- C y = 0
- D x = 1

Understand It with Pulse | Flag a mistake

19 **The radical symbol for a cube root has index**

A 2

B 4

C 1

D 3

Understand It with Pulse | Flag a mistake

20 **The range of y equals the square root of x is**

A all real numbers

B y less than zero

C y greater than 1

D y greater than or equal to zero

Understand It with Pulse | Flag a mistake

21 For the radical function y = the square root of x - 4 , what is the smallest x value in its domain

ANSWER _____

Understand It with Pulse | Flag a mistake

22 A rational function has denominator x minus 4. At what x value is the function undefined

ANSWER _____

Understand It with Pulse | Flag a mistake

23 Simplifying the square root of 12 gives

A $3\sqrt{2}$

B $2\sqrt{3}$

C 6

D $4\sqrt{3}$

Understand It with Pulse | Flag a mistake

24 **What is the principal square root of 25**

ANSWER

Understand It with Pulse | Flag a mistake

25 **For the radical function y = the square root of x - 5 , what is the smallest x value in its domain**

ANSWER

Understand It with Pulse | Flag a mistake

ANSWER KEY

1. 3
2. 3
3. A
4. 4
5. B
6. C
7. 2
8. B
9. B
10. C
11. A
12. B
13. A
14. D
15. C
16. A
17. A
18. C
19. D
20. D
21. 4
22. 4
23. B
24. 5
25. 5

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