ARIZONA ALGEBRA II · UNIT 3 · 25 QUESTIONS

Exponential, Logarithmic, and Trigonometric 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 **The value of 2^5 is**

- A 10
- B 32
- C 25
- D 16

Understand It with Pulse | Flag a mistake

2 The value of $\log_2 32$ is

- A 6
- B 5
- C 4
- D 16

Understand It with Pulse | Flag a mistake

3 The value of $\log_3 81$ is

- A 3
- B 4
- C 27
- D 9

Understand It with Pulse | Flag a mistake

4 **The solution of $5^x = 125$ is**

A x = 3

B x = 25

C x = 5

D x = 4

Understand It with Pulse | Flag a mistake

5 **A quantity starts at 200 and doubles every hour After 3 hours it is**



A 1200

B 1600

C 800

D 600

Understand It with Pulse | Flag a mistake

6 **A quantity starts at 1000 and halves every 2 hours After 6 hours it is**

- **A** 500
- **B** 250
- **C** 1000
- **D** 125

Understand It with Pulse | Flag a mistake

7 **The equation $4^3 = 64$ in logarithmic form is**

- **A** $\log_4 64 = 3$
- **B** $\log_4 3 = 64$
- **C** $\log_{64} 4 = 3$
- **D** $\log_3 64 = 4$

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8 **The value of $\log_{10} 1000$ is**

- **A** 3
- **B** 100
- **C** 4
- **D** 10

Understand It with Pulse | Flag a mistake

9 **The expression log(ab) equals**

- **A** log a + log b
- **B** log a · log b
- **C** $\frac{\log a}{\log b}$
- **D** log a - log b

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10 The value of $\log_2 8 + \log_2 4$ is

- A 12
- B 32
- C 7
- D 5

Understand It with Pulse | Flag a mistake

11 The solution of $\log_{10} x = 2$ is

- A 200
- B 10
- C 100
- D 20

Understand It with Pulse | Flag a mistake

12 **The solution of $2^{x+1} = 32$ is**

A x = 5

B x = 3

C x = 4

D x = 6

Understand It with Pulse | Flag a mistake

13 **The value of $1000(1.05)^2$ is**



A 1100

B 1000

C 1050

D 1102.5

Understand It with Pulse | Flag a mistake

14 **A sample of 80 grams has a half life of 10 days After 20 days the mass remaining is**

- **A** 60
- **B** 10
- **C** 40
- **D** 20

Understand It with Pulse | Flag a mistake

15 **The value of sin 30° is**

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

Understand It with Pulse | Flag a mistake

16 **The value of cos 60° is**

A $\frac{\sqrt{3}}{2}$

B $\frac{\sqrt{2}}{2}$

C 0

D $\frac{1}{2}$

Understand It with Pulse | Flag a mistake

17 **The value of tan 45° is**

A 0

B undefined

C $\sqrt{3}$

D 1

Understand It with Pulse | Flag a mistake

18 **In a right triangle the side opposite an angle is 3 and the hypotenuse is 5. The sine of the angle is**



A $\frac{3}{4}$

B $\frac{5}{3}$

C $\frac{3}{5}$

D $\frac{4}{5}$

Understand It with Pulse | Flag a mistake

19 **In a right triangle the side adjacent to an angle is 4 and the hypotenuse is 5. The cosine of the angle is**

A $\frac{3}{5}$

B $\frac{4}{3}$

C $\frac{4}{5}$

D $\frac{5}{4}$

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20 **In a right triangle the opposite side is 3 and the adjacent side is 4. The tangent of the angle is**



A $\frac{3}{4}$

B $\frac{3}{5}$

C $\frac{5}{4}$

D $\frac{4}{3}$

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21 The value of sin 90° is

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

Understand It with Pulse | Flag a mistake

22 The value of cos 180° is

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

Understand It with Pulse | Flag a mistake

23 **The amplitude of y = 3 sin x is**

A 2

B 6

C 1

D 3

Understand It with Pulse | Flag a mistake

24 **The period of y = sin 2x is**



A 4π

B $\frac{\pi}{2}$

C 2π

D π

Understand It with Pulse | Flag a mistake

25 **If $f(x) = 2^x$, then f(6) is**

ANSWER

Understand It with Pulse | Flag a mistake

ANSWER KEY

1. B
2. B
3. B
4. A
5. B
6. D
7. A
8. A
9. A
10. D
11. C
12. C
13. D
14. D
15. A
16. D
17. D
18. C
19. C
20. A
21. A
22. A
23. D
24. D
25. 64

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