ILLINOIS ALGEBRA 2 · UNIT 3 · 10 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 solution of $\log_5 x = 2$ is**

- A 25
- B 7
- C 32
- D 10

Understand It with Pulse | Flag a mistake

2 **A bank balance of 1000 dollars grows by 5% each year. After 2 years, the balance, in dollars, is**

ANSWER _____

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3 The exact value of $\sin(\frac{\pi}{3})$ is

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

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4 The exact value of $\cos(\frac{\pi}{6})$ is

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

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5 **An angle of 210° has a reference angle of**

A 30°

B 60°

C 150°

D 210°

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6 **An angle of -60° is coterminal with**

A 120°

B 300°

C 240°

D 60°

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7 The period of $y = \cos(3x)$ is

- A 2π
- B $\frac{\pi}{3}$
- C 3π
- D $\frac{2\pi}{3}$

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8 The graph below shows $y = 3\cos x$. The maximum value of the function is

- A 6
- B 1
- C 2
- D 3

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9 The number of solutions of $\cos x = 0$ on $0 \leq x < 2\pi$ is

ANSWER _____

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10 If $\tan\theta = 1$ and θ is in Quadrant I, then $\sin\theta$ is

A $\frac{1}{2}$

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

C $\frac{\sqrt{2}}{2}$

D 1

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ANSWER KEY

1. A
2. 1102.5
3. D
4. D
5. A
6. B
7. D
8. D
9. 2
10. C

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