VERMONT 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

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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 $\sin(\pi/3)$ is

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

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4 The exact value of $\cos(\pi/6)$ is

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

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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** π/3
- **C** 3π
- **D** 2π/3

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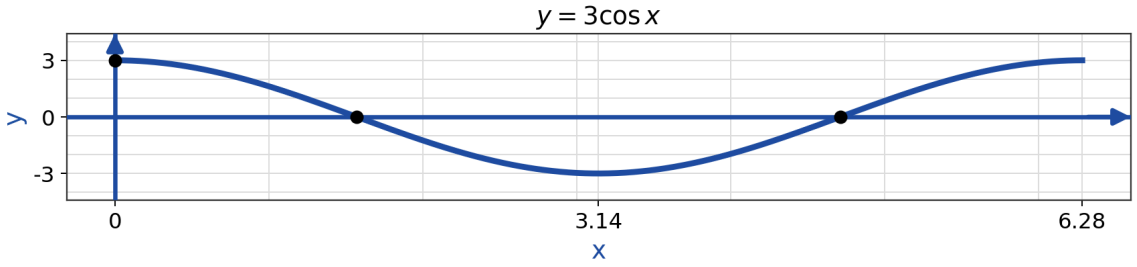
8 **The graph below shows y = 3cos x. The maximum value of the function is**



- **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 $\sqrt{\frac{3}{2}}$

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

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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