Exponential, Logarithmic, and Trigonometric Functions - Practice Test | Montana Algebra 2

Practice Test

Unit 3: Exponential, Logarithmic, and Trigonometric Functions

10 Questions

Original practice test based on the Montana curriculum. Work through each question, then check your answers at the end.

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.

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Question 1

The solution of $\log_5 x = 2$ is

A) 25

B) 7

C) 32

D) 10

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Question 2

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

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Question 3

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

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

B) 1

C) $\frac{1}{2}$

D) $\frac{\sqrt{3}}{2}$

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Question 4

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

A) 0

B) $\frac{1}{2}$

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

D) $\frac{\sqrt{3}}{2}$

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Question 5

An angle of 210° has a reference angle of

A) 30°

B) 60°

C) 150°

D) 210°

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Question 6

An angle of -60° is coterminal with

A) 120°

B) 300°

C) 240°

D) 60°

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Question 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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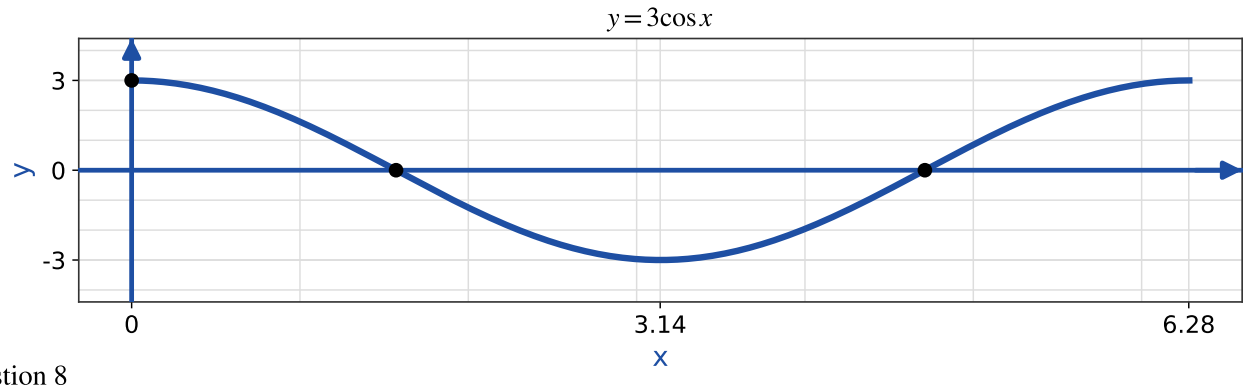

Question 8

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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Question 9

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

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Question 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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