🔥 **StudyBlaze.io**

Your AI Tutor for interactive quiz, worksheet and flashcard creation.

Absolute Value Quiz Answer Key PDF

Absolute Value Quiz Answer Key PDF

Disclaimer: The absolute value quiz answer key pdf was generated with the help of StudyBlaze AI. Please be aware that AI can make mistakes. Please consult your teacher if you're unsure about your solution or think there might have been a mistake. Or reach out directly to the StudyBlaze team at max@studyblaze.io.

Discuss the significance of absolute value in mathematical problem-solving and its impact on understanding distances.

The significance of absolute value in mathematical problem-solving lies in its ability to represent distances without regard to direction, allowing for clearer analysis and understanding of numerical relationships.

If |x| = 10, what are the possible values of x?

A. 10 only

B. -10 only

C. 0 and 10

D. 10 and -10 ✓

What is the result of |0|?

A. 0 ✓

B. 1

C. -1

D. Undefined

The graph of y = |x| is shaped like a:

A. Line

B. Circle

C. V ✓

D. Parabola

Provide a step-by-step solution to the equation |x + 2| = 8.

Create hundreds of practice and test experiences based on the latest learning science.

Visit Studyblaze.io

Absolute Value Quiz Answer Key PDF

StudyBlaze.io

Your AI Tutor for interactive quiz, worksheet and flashcard creation.

x = 6 or x = -10

What is the absolute value of -7?

A. -7
B. 0
C. 7 ✓
D. 14

Which of the following represents the absolute value of a number x?

A. x^2
B. -x
C. |x| ✓
D. 1/x

Which of the following are properties of absolute value? (Select all that apply)

A. |x| ≥ 0 ✓
B. |x| = x if x ≥ 0 ✓
C. |x| = -x if x < 0 ✓
D. |x| = x^2

Which of the following is always true for any real number x?

A. |x| < 0
B. |x| = x
C. |x| ≥ 0 ✓
D. |x| = -x

What is the absolute value of the expression |3 - 5|?

A. -2
B. 2 ✓
C. 8
D. 0

Create hundreds of practice and test experiences based on the latest learning science.

Visit Studyblaze.io

Absolute Value Quiz Answer Key PDF

🔥 **StudyBlaze.io**

Your AI Tutor for interactive quiz, worksheet and flashcard creation.

Which of the following inequalities are equivalent to |x| < 3? (Select all that apply)

A. -3 < x < 3 ✓

B. x < 3 ✓

C. x > -3 ✓

D. x = 3

What are the solutions to the equation |x - 4| = 6? (Select all that apply)

A. x = 10 ✓

B. x = -2 ✓

C. x = 4

D. x = 6

Solve the inequality |2x - 3| > 5 and explain your solution process.

x < -1 or x > 4

How does the graph of y = |x| differ from the graph of y = x?

The graph of y = |x| differs from the graph of y = x in that y = |x| is V-shaped and only takes non-negative values, while y = x is a straight line that includes both positive and negative values.

Explain in your own words what the absolute value of a number represents.

The absolute value of a number represents its distance from zero on the number line, without regard to its sign.

Which equation represents the condition where x is 5 units away from 0?

A. x = 5

B. |x| = 5 ✓

C. x = -5

D. |x| = 0

Create hundreds of practice and test experiences based on the latest learning science.

Visit Studyblaze.io

Absolute Value Quiz Answer Key PDF

🔥 **StudyBlaze.io**

Your AI Tutor for interactive quiz, worksheet and flashcard creation.

In which situations would you use absolute value? (Select all that apply)

A. Calculating distances ✓

B. Determining direction

C. Measuring magnitudes ✓

D. Solving quadratic equations

Which of the following statements about absolute value are true? (Select all that apply)

A. $|x + y| = |x| + |y|$

B. $|xy| = |x| * |y|$ ✓

C. $|x/y| = |x| / |y|$ for $y \neq 0$ ✓

D. $|x - y| = |y - x|$ ✓

Which of the following expressions are equal to $|x|$? (Select all that apply)

A. $\sqrt{(x^2)}$ ✓

B. x if $x \geq 0$ ✓

C. $-x$ if $x < 0$ ✓

D. x^2

Describe a real-world scenario where absolute value is used and explain why it is important in that context.

A real-world scenario where absolute value is used is in engineering, particularly in the manufacturing of parts that must fit together precisely. For example, if a part is designed to be 10 mm in diameter, the acceptable tolerance might be ±0.5 mm. Here, the absolute value is important to determine if a part measuring 10.3 mm or 9.7 mm is within the acceptable range, as both deviations are equally significant regardless of whether they are above or below the target measurement.

Create hundreds of practice and test experiences based on the latest learning science.

Visit Studyblaze.io

Absolute Value Quiz Answer Key PDF