🔥 StudyBlaze.io

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

# Triangle Sum Worksheet Answer Key PDF

Triangle Sum Worksheet Answer Key PDF

*Disclaimer: The triangle sum worksheet 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.*

## Part 1: Building a Foundation

**What is the sum of the interior angles of any triangle?**

undefined. 90 degrees

**undefined. 180 degrees** ✓

undefined. 270 degrees

undefined. 360 degrees

The sum of the interior angles of any triangle is 180 degrees.

**What is the sum of the interior angles of any triangle?**

undefined. 90 degrees

**undefined. 180 degrees** ✓

undefined. 270 degrees

undefined. 360 degrees

The sum of the interior angles of any triangle is 180 degrees.

**Which of the following are properties of an equilateral triangle? (Select all that apply)**

**undefined. All sides are equal** ✓

**undefined. All angles are 60 degrees** ✓

undefined. It has one right angle

undefined. It has two equal sides

An equilateral triangle has all sides equal and all angles measuring 60 degrees.

**Which of the following are properties of an equilateral triangle? (Select all that apply)**

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

Visit Studyblaze.io

Triangle Sum Worksheet Answer Key PDF

🔥 **StudyBlaze.io**

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

**undefined. All sides are equal ✓**

**undefined. All angles are 60 degrees ✓**

undefined. It has one right angle

undefined. It has two equal sides

An equilateral triangle has all sides equal and all angles measuring 60 degrees.

**Explain in your own words what the Triangle Sum Theorem states.**

**The Triangle Sum Theorem states that the sum of the interior angles of a triangle is always 180 degrees.**

**Explain in your own words what the Triangle Sum Theorem states.**

**The Triangle Sum Theorem states that the sum of the interior angles of a triangle is always 180 degrees.**

**List the different types of triangles based on their angles.**

1. What are the types of triangles based on angles?

**Acute, Right, Obtuse**

The different types of triangles based on their angles are acute, right, and obtuse triangles.

**In a right triangle, what is the measure of the right angle?**

undefined. 45 degrees

undefined. 60 degrees

**undefined. 90 degrees ✓**

undefined. 120 degrees

In a right triangle, the measure of the right angle is 90 degrees.

**In a right triangle, what is the measure of the right angle?**

undefined. 45 degrees

undefined. 60 degrees

**undefined. 90 degrees ✓**

undefined. 120 degrees

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

Visit Studyblaze.io

Triangle Sum Worksheet Answer Key PDF

🔥 **StudyBlaze.io**

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

The measure of the right angle in a right triangle is 90 degrees.

## Part 2: Comprehension and Application

**Which type of triangle has one angle greater than 90 degrees?**

undefined.  Acute triangle

undefined.  Right triangle

**undefined.  Obtuse triangle ✓**

undefined.  Equilateral triangle

A triangle with one angle greater than 90 degrees is called an obtuse triangle.

**Which type of triangle has one angle greater than 90 degrees?**

undefined.  Acute triangle

undefined.  Right triangle

**undefined.  Obtuse triangle ✓**

undefined.  Equilateral triangle

The type of triangle that has one angle greater than 90 degrees is called an obtuse triangle.

**Which statements are true about an isosceles triangle? (Select all that apply)**

**undefined.  It has two equal sides ✓**

undefined.  It has three equal angles

**undefined.  It can be a right triangle ✓**

undefined.  It always has an obtuse angle

An isosceles triangle has two equal sides and can also be a right triangle.

**Which statements are true about an isosceles triangle? (Select all that apply)**

**undefined.  It has two equal sides ✓**

undefined.  It has three equal angles

**undefined.  It can be a right triangle ✓**

undefined.  It always has an obtuse angle

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

Visit Studyblaze.io

Triangle Sum Worksheet Answer Key PDF

🔥 **StudyBlaze.io**

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

An isosceles triangle has two equal sides and can also be a right triangle.

**Describe how the exterior angle of a triangle relates to its interior angles.**

**The exterior angle of a triangle is equal to the sum of the two non-adjacent interior angles.**

**Describe how the exterior angle of a triangle relates to its interior angles.**

**The exterior angle of a triangle is equal to the sum of the two non-adjacent interior angles.**

**If two angles of a triangle are 50 degrees and 60 degrees, what is the measure of the third angle?**

**undefined. 70 degrees ✓**

undefined. 80 degrees

undefined. 90 degrees

undefined. 100 degrees

The measure of the third angle is 70 degrees, since 180 - (50 + 60) = 70.

**If two angles of a triangle are 50 degrees and 60 degrees, what is the measure of the third angle?**

**undefined. 70 degrees ✓**

undefined. 80 degrees

undefined. 90 degrees

undefined. 100 degrees

The measure of the third angle is 70 degrees.

**A triangle has angles expressed as x, 2x, and 3x. Find the value of x and the measures of all three angles.**

**The value of x is 30 degrees, making the angles 30 degrees, 60 degrees, and 90 degrees.**

**A triangle has angles expressed as x, 2x, and 3x. Find the value of x and the measures of all three angles.**

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

Visit Studyblaze.io

Triangle Sum Worksheet Answer Key PDF

🔥 **StudyBlaze.io**

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

**The value of x is 30 degrees, making the angles 30 degrees, 60 degrees, and 90 degrees.**

## Part 3: Analysis, Evaluation, and Creation

**Analyze the following statements and select those that correctly describe a scalene triangle. (Select all that apply)**

**undefined. All sides are different lengths ✓**

**undefined. All angles are different ✓**

**undefined. It can have a right angle ✓**

undefined. It has two equal sides

A scalene triangle has all sides of different lengths and all angles different.

**Analyze the following statements and select those that correctly describe a scalene triangle. (Select all that apply)**

**undefined. All sides are different lengths ✓**

**undefined. All angles are different ✓**

**undefined. It can have a right angle ✓**

undefined. It has two equal sides

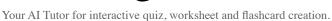A scalene triangle has all sides of different lengths and all angles different.

**Given a triangle with angles a, b, and c, where a = b + 10 and c = 2 b, analyze and find the measures of the angles.**

**The measures of the angles are a = 70 degrees, b = 60 degrees, and c = 120 degrees.**

**Given a triangle with angles a, b, and c, where a = b + 10 and c = 2 b, analyze and find the measures of the angles.**

**The measures of the angles can be found by solving the equations derived from the relationships.**

**Which statement best evaluates the relationship between the interior and exterior angles of a triangle?**

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

Visit Studyblaze.io

Triangle Sum Worksheet Answer Key PDF

🔥 **StudyBlaze.io**

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

undefined. The exterior angle is always greater than any interior angle

**undefined. The exterior angle is equal to the sum of the two non-adjacent interior angles ✓**

undefined. The exterior angle is always less than any interior angle

undefined. The exterior angle is equal to the adjacent interior angle

The exterior angle is equal to the sum of the two non-adjacent interior angles.

**Which statement best evaluates the relationship between the interior and exterior angles of a triangle?**

undefined. The exterior angle is always greater than any interior angle

**undefined. The exterior angle is equal to the sum of the two non-adjacent interior angles ✓**

undefined. The exterior angle is always less than any interior angle

undefined. The exterior angle is equal to the adjacent interior angle

The exterior angle is equal to the sum of the two non-adjacent interior angles.

**Create a real-world problem involving a triangle, where you need to find a missing angle, and solve it using the Triangle Sum Theorem.**

**An example could be a triangular park where two angles are known, and you need to find the third angle.**

**Create a real-world problem involving a triangle, where you need to find a missing angle, and solve it using the Triangle Sum Theorem.**

**Create a scenario involving a triangle and apply the Triangle Sum Theorem to find the missing angle.**

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

Visit Studyblaze.io

Triangle Sum Worksheet Answer Key PDF