

Complementary Supplementary Angles Worksheet

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Part 1: Building a Foundation

What is the sum of the measures of two complementary angles?

Hint: Think about the definition of complementary angles.

- A) 45 degrees
- B) 90 degrees
- C) 180 degrees
- D) 360 degrees

What is the sum of the measures of two supplementary angles?

Hint: Consider the definition of supplementary angles.

- A) 45 degrees
- B) 90 degrees
- C) 180 degrees
- D) 360 degrees

Which of the following statements are true about complementary angles?

Hint: Think about the properties of complementary angles.

- A) They always form a right angle.
- B) They can be adjacent or non-adjacent.
- C) Their sum is 180 degrees.
- D) They are used in right triangles.

Explain in your own words what makes two angles supplementary.

Hint: Consider the definition and properties of supplementary angles.

List two properties of supplementary angles.

Hint: Think about the definitions and characteristics of these angles.

1. Property 1

2. Property 2

Part 2: Application and Analysis

If angle A is 40 degrees, what is the measure of its complementary angle?

Hint: Use the definition of complementary angles to find the answer.

- A) 40 degrees
- B) 50 degrees
- C) 90 degrees
- D) 140 degrees

You have two angles, one measuring x degrees and the other measuring $(90 - x)$ degrees. Which of the following are true?

Hint: Consider the relationship between the angles based on their measures.

- A) The angles are complementary.
- B) The angles are supplementary.
- C) The sum of the angles is 90 degrees.
- D) The sum of the angles is 180 degrees.

Given two angles, 70 degrees and 110 degrees, determine if they are complementary, supplementary, or neither. Explain your reasoning.

Hint: Use the definitions of complementary and supplementary angles to analyze the situation.

If two angles form a linear pair and one angle is 75 degrees, what is the measure of the other angle?

Hint: Remember that linear pairs are supplementary.

- A) 15 degrees
- B) 75 degrees
- C) 105 degrees
- D) 180 degrees

Analyze the following pairs of angles and determine which are complementary:

Hint: Consider the sum of the angles in each pair.

- A) 30 degrees and 60 degrees
- B) 45 degrees and 45 degrees
- C) 90 degrees and 90 degrees
- D) 120 degrees and 60 degrees

Explain how you can determine if two angles are supplementary using a geometric diagram.

Hint: Think about the properties of angles in a straight line.

Part 3: Evaluation and Creation

Two angles are complementary, and one angle is three times the other. What is the measure of the smaller angle?

Hint: Set up an equation based on the relationship between the angles.

- A) 15 degrees
- B) 22.5 degrees
- C) 30 degrees
- D) 45 degrees

Evaluate the following statements and select those that are true for supplementary angles:

Hint: Consider the properties of supplementary angles.

- A) They always form a straight line.
- B) They can be adjacent or non-adjacent.
- C) Their sum is always 90 degrees.
- D) They are always used in triangles.

Create a real-world problem involving supplementary angles and provide a solution.

Hint: Think about situations where angles are used in design or construction.

Design a geometric figure that includes at least one pair of complementary angles and one pair of supplementary angles. Describe the figure and the angles involved.

Hint: Consider common geometric shapes and their properties.

1. Complementary Angles

2. Supplementary Angles

