

# Complementary And Supplementary Angles Worksheet Answer Key PDF

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## Part 1: Building a Foundation

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

undefined. A) 45 degrees

**undefined. B) 90 degrees ✓**

undefined. C) 180 degrees

undefined. D) 360 degrees

The sum of two complementary angles is always 90 degrees.

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**undefined. B) 90 degrees ✓**

undefined. C) 180 degrees

undefined. D) 360 degrees

The sum of two complementary angles is always 90 degrees.

**Which of the following statements are true about supplementary angles? (Select all that apply)**

undefined. **A) They always form a straight line. ✓**

undefined. **B) Their sum is 180 degrees. ✓**

undefined. **C) They can be adjacent or non-adjacent. ✓**

undefined. D) They always form a right angle.

Supplementary angles are defined by their sum being 180 degrees and can be adjacent or non-adjacent.

**Which of the following statements are true about supplementary angles? (Select all that apply)**

undefined. **A) They always form a straight line. ✓**

undefined. **B) Their sum is 180 degrees. ✓**

undefined. **C) They can be adjacent or non-adjacent. ✓**

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undefined. **C) They can be adjacent or non-adjacent. ✓**

undefined. D) They always form a right angle.

Supplementary angles are defined by their sum being 180 degrees.

**Explain in your own words what complementary angles are and provide an example.**

**Complementary angles are two angles whose measures add up to 90 degrees. An example is 30 degrees and 60 degrees.**

**Explain in your own words what complementary angles are and provide an example.**

**Complementary angles are two angles whose measures add up to 90 degrees.**

**Explain in your own words what complementary angles are and provide an example.**

**Complementary angles are two angles whose measures add up to 90 degrees.**

**Identify the complementary angle for each of the following:**

1. a) 40 degrees

**50 degrees**

2. b) 75 degrees

**15 degrees**

3. c) 10 degrees

**80 degrees**

The complementary angles are calculated by subtracting the given angle from 90 degrees.

**Identify the complementary angle for each of the following:**

1. a) 40 degrees

**50 degrees**

2. b) 75 degrees

**15 degrees**

3. c) 10 degrees

**80 degrees**

The complementary angle can be found by subtracting the given angle from 90 degrees.

**Identify the complementary angle for each of the following:**

1. a) 40 degrees

**50 degrees**

2. b) 75 degrees

**15 degrees**

3. c) 10 degrees

**80 degrees**

The complementary angle can be found by subtracting the given angle from 90 degrees.

**If angle A is 60 degrees, what is the measure of its supplementary angle?**

undefined. A) 30 degrees

undefined. B) 90 degrees

**undefined. C) 120 degrees ✓**

undefined. D) 180 degrees

The supplementary angle is found by subtracting the given angle from 180 degrees.

**If angle A is 60 degrees, what is the measure of its supplementary angle?**

undefined. A) 30 degrees

undefined. B) 90 degrees

**undefined. C) 120 degrees ✓**

undefined. D) 180 degrees

The supplementary angle can be found by subtracting the given angle from 180 degrees.

**If angle A is 60 degrees, what is the measure of its supplementary angle?**

undefined. A) 30 degrees

undefined. B) 90 degrees

**undefined. C) 120 degrees ✓**

undefined. D) 180 degrees

The supplementary angle can be found by subtracting the given angle from 180 degrees.

## Part 2: Comprehension and Application

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**Which of the following scenarios correctly illustrate supplementary angles? (Select all that apply)**

**undefined. A) Two angles forming a straight line. ✓**

undefined. B) Two angles in a triangle.

**undefined. C) Two angles that add up to 180 degrees. ✓**

undefined. D) Two angles that form a right angle.

Supplementary angles are defined by their sum being 180 degrees.

**Which of the following scenarios correctly illustrate supplementary angles? (Select all that apply)**

undefined. **A) Two angles forming a straight line. ✓**

undefined. B) Two angles in a triangle.

undefined. **C) Two angles that add up to 180 degrees. ✓**

undefined. D) Two angles that form a right angle.

Supplementary angles are defined by their sum being 180 degrees.

**Which of the following scenarios correctly illustrate supplementary angles? (Select all that apply)**

undefined. **A) Two angles forming a straight line. ✓**

undefined. B) Two angles in a triangle.

undefined. **C) Two angles that add up to 180 degrees. ✓**

undefined. D) Two angles that form a right angle.

Supplementary angles are defined by their sum being 180 degrees.

**Describe how you would determine if two angles are supplementary without measuring them directly.**

**You can determine if two angles are supplementary by checking if they form a straight line or if their measures add up to 180 degrees.**

**Describe how you would determine if two angles are supplementary without measuring them directly.**

**You can determine if two angles are supplementary by checking if they form a straight line.**

**Describe how you would determine if two angles are supplementary without measuring them directly.**

**You can determine if two angles are supplementary by checking if they form a straight line.**

**In a right triangle, if one of the angles is 35 degrees, what is the measure of the other non-right angle?**

undefined. A) 35 degrees

undefined. B) 45 degrees

undefined. **C) 55 degrees ✓**

undefined. D) 65 degrees

The other non-right angle can be found by subtracting the sum of the known angles from 180 degrees.

**In a right triangle, if one of the angles is 35 degrees, what is the measure of the other non-right angle?**

undefined. A) 35 degrees

undefined. B) 45 degrees

**undefined. C) 55 degrees ✓**

undefined. D) 65 degrees

The other non-right angle can be found by subtracting the given angle from 90 degrees.

**In a right triangle, if one of the angles is 35 degrees, what is the measure of the other non-right angle?**

undefined. A) 35 degrees

undefined. B) 45 degrees

**undefined. C) 55 degrees ✓**

undefined. D) 65 degrees

The other non-right angle can be found by subtracting the given angle from 90 degrees.

**A straight road intersects with another road, forming two angles. If one angle measures 70 degrees, calculate the measure of the other angle and explain your reasoning.**

**The other angle measures 110 degrees because supplementary angles add up to 180 degrees.**

**A straight road intersects with another road, forming two angles. If one angle measures 70 degrees, calculate the measure of the other angle and explain your reasoning.**

**The other angle can be found by subtracting the given angle from 180 degrees.**

**A straight road intersects with another road, forming two angles. If one angle measures 70 degrees, calculate the measure of the other angle and explain your reasoning.**

**The other angle can be found by subtracting the given angle from 180 degrees.**

### Part 3: Analysis, Evaluation, and Creation

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**If two angles are complementary and one angle is twice the other, what are the measures of the two angles?**

undefined. **A) 30 degrees and 60 degrees ✓**

undefined. B) 45 degrees and 45 degrees

undefined. C) 60 degrees and 120 degrees

undefined. D) 90 degrees and 90 degrees

The angles are 30 degrees and 60 degrees, as they add up to 90 degrees.

**If two angles are complementary and one angle is twice the other, what are the measures of the two angles?**

undefined. **A) 30 degrees and 60 degrees ✓**

undefined. B) 45 degrees and 45 degrees

undefined. C) 60 degrees and 120 degrees

undefined. D) 90 degrees and 90 degrees

Let the smaller angle be  $x$ , then the larger angle is  $2x$ . The equation is  $x + 2x = 90$ .

**If two angles are complementary and one angle is twice the other, what are the measures of the two angles?**

undefined. **A) 30 degrees and 60 degrees ✓**

undefined. B) 45 degrees and 45 degrees

undefined. C) 60 degrees and 120 degrees

undefined. D) 90 degrees and 90 degrees

Let the smaller angle be  $x$ , then the larger angle is  $2x$ . The equation is  $x + 2x = 90$ .

**Analyze the following statements and identify which are true about complementary and supplementary angles. (Select all that apply)**

undefined. **A) Complementary angles always form a right angle. ✓**

undefined. **B) Supplementary angles always form a straight line. ✓**

undefined. C) Two angles can be both complementary and supplementary.

undefined. D) The sum of complementary angles is always less than the sum of supplementary angles.

Some statements about complementary and supplementary angles are true based on their definitions.

**Analyze the following statements and identify which are true about complementary and supplementary angles. (Select all that apply)**

undefined. **A) Complementary angles always form a right angle. ✓**

undefined. **B) Supplementary angles always form a straight line. ✓**

undefined. C) Two angles can be both complementary and supplementary.

undefined. D) The sum of complementary angles is always less than the sum of supplementary angles.

Analyze the statements based on the definitions of complementary and supplementary angles.

**Analyze the following statements and identify which are true about complementary and supplementary angles. (Select all that apply)**

undefined. **A) Complementary angles always form a right angle. ✓**

undefined. **B) Supplementary angles always form a straight line. ✓**

undefined. C) Two angles can be both complementary and supplementary.

undefined. D) The sum of complementary angles is always less than the sum of supplementary angles.

Complementary angles sum to 90 degrees, while supplementary angles sum to 180 degrees.

**Consider a scenario where two angles are supplementary, and one angle is 40 degrees more than the other. Determine the measures of both angles and explain your process.**

**Let  $x$  be the smaller angle. Then,  $x + (x + 40) = 180$ . Solving gives the angles as 70 degrees and 110 degrees.**

**Consider a scenario where two angles are supplementary, and one angle is 40 degrees more than the other. Determine the measures of both angles and explain your process.**

**Let the smaller angle be  $x$ , then the larger angle is  $x + 40$ . The equation is  $x + (x + 40) = 180$ .**

**Consider a scenario where two angles are supplementary, and one angle is 40 degrees more than the other. Determine the measures of both angles and explain your process.**

**Let the smaller angle be  $x$ , then the larger angle is  $x + 40$ . The equation is  $x + (x + 40) = 180$ .**



**Create a problem involving supplementary angles in a real-world context, such as architecture or engineering, and provide a solution to your problem.**

**An example could be designing a roof where two angles must be supplementary to ensure proper drainage.**

**Create a problem involving supplementary angles in a real-world context, such as architecture or engineering, and provide a solution to your problem.**

**Provide a real-world scenario involving supplementary angles and a solution.**

**Create a problem involving supplementary angles in a real-world context, such as architecture or engineering, and provide a solution to your problem.**

**Provide a real-world scenario involving supplementary angles and a solution.**