Subtracting Integers Worksheet

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Part 1: Building a Foundation

What is the definition of an integer?

Hint: Think about the types of numbers that can be classified as integers.

- ◯ A) A fraction
- ◯ B) A whole number that can be positive, negative, or zero
- ◯ C) A decimal number
- ◯ D) A number with a square root

Which of the following are integers? (Select all that apply)

Hint: Identify the numbers that fit the definition of integers.

- ☐ A) -3
- ☐ B) 0
- ☐ C) 2.5
- ☐ D) 7

Explain the rule for subtractING a negative integer from another integer.

Hint: Consider how subtraction interacts with negative numbers.

List the steps involved in subtractING integers using the number line.

Hint: Think about how you would visualize the subtraction process.

1. Step 1

2. Step 2

3. Step 3

Part 2: Understanding and Interpretation

Which statement correctly describes the result of subtractING a larger positive integer from a smaller positive integer?

Hint: Consider the implications of subtractING larger numbers.

- ◯ A) The result is always positive.
- ◯ B) The result is always zero.
- ◯ C) The result is always negative.
- ◯ D) The result is always a fraction.

When subtractING integers, which of the following statements are true? (Select all that apply)

Hint: Think about the properties of subtraction.

- ☐ A) SubtractING a positive integer is the same as adding a negative integer.
- ☐ B) SubtractING a negative integer is the same as adding a positive integer.
- ☐ C) SubtractING zero from any integer changes the integer.
- ☐ D) SubtractING an integer from itself results in zero.

Describe how the number line can be used to solve the subtraction problem 5 - (-3).

Hint: Think about how you would visualize this operation on a number line.

Part 3: Application and Analysis

What is the result of the subtraction -4 - 6?

Hint: Consider how subtractING a positive integer affects a negative integer.

- ◯ A) 10
- ◯ B) -10
- ◯ C) 2
- ◯ D) -2

Which of the following problems involve subtractING a negative integer? (Select all that apply)

Hint: Identify the problems that include a negative integer in the subtraction.

- ☐ A) 8 - 5
- ☐ B) 7 - (-2)
- ☐ C) -3 - 4
- ☐ D) -6 - (-1)

Solve the subtraction problem -9 - (-4) and explain your reasoning.

Hint: Think about how subtractING a negative integer affects the result.

Part 4: Evaluation and Creation

If x - y = z, which of the following must be true?

Hint: Consider how to rearrange the equation to isolate x.

- ◯ A) x = y + z
- ◯ B) x = y - z
- ◯ C) x = z - y
- ◯ D) x = -y - z

Analyze the following statements and identify which are correct regarding integer subtraction. (Select all that apply)

Hint: Evaluate the properties of integer subtraction.

- ☐ A) SubtractING a negative integer always results in a larger integer.
- ☐ B) SubtractING a positive integer always results in a smaller integer.
- ☐ C) The subtraction of two negative integers can result in a positive integer.
- ☐ D) SubtractING zero from any integer results in the same integer.

Analyze the subtraction -5 - 7 and explain why the result is negative.

Hint: Consider the values of the integers involved.

Which subtraction problem will result in the smallest integer?

Hint: Consider the values of each option carefully.

- ◯ A) 3 - 7
- ◯ B) -2 - 5
- ◯ C) -8 - (-3)
- ◯ D) 0 - 6

Evaluate the following scenarios and determine which involve a change in direction on the number line. (Select all that apply)

Hint: Think about how movement on the number line works.

- [ ] A) Moving from 5 to -3
- [ ] B) Moving from -2 to 4
- [ ] C) Moving from 0 to -5
- [ ] D) Moving from -7 to -7

Create a real-world scenario where subtractING integers is necessary, and explain how you would solve it using the rules of integer subtraction.

Hint: Think about situations where you might lose or owe something.