

Adding And Subtracting Integers Worksheet Answer Key PDF

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Part 1: Building a Foundation

What is the result of adding two negative integers?

undefined. A) Positive

undefined. B) Negative ✓

undefined. C) Zero

undefined. D) Undefined

The result of adding two negative integers is always negative.

Which of the following are integers?

undefined. A) -3 ✓

undefined. B) 0.5

undefined. C) 7 ✓

undefined. D) 2.5

Integers include whole numbers and their negatives, excluding fractions and decimals.

Explain what an integer is and provide three examples.

An integer is a whole number that can be positive, negative, or zero. Examples include -1, 0, and 5.

List the steps involved in subtractING one integer from another.

1. Step 1

Identify the integers.

2. Step 2

Determine the operation.

3. Step 3

Calculate the result.

The steps include identifying the integers, determining the operation, and calculating the result.

What is the opposite of the integer -8?

undefined. A) 8 ✓

undefined. B) -8

undefined. C) 0

undefined. D) 16

The opposite of -8 is 8.

Part 2: Understanding and Interpretation

When adding a positive integer to a negative integer, what determines the sign of the result?

undefined. A) The larger absolute value ✓

undefined. B) The smaller absolute value

undefined. C) The number of digits

undefined. D) The sum of the integers

The sign of the result is determined by the larger absolute value.

Which of the following statements are true about the number line?

undefined. A) Moving right indicates addition. ✓

undefined. B) Moving left indicates subtraction. ✓

undefined. C) Zero is at the center. ✓

undefined. D) Negative numbers are to the right of zero.

True statements include that moving right indicates addition and moving left indicates subtraction.

Describe how you would use a number line to solve the equation $3 - 5$.

You would start at 3 and move 5 units to the left to find the result.

Part 3: Application and Analysis

If the temperature is -2°C and it drops by 5°C , what is the new temperature?

undefined. A) 3°C

undefined. B) -3°C

undefined. C) -7°C ✓

undefined. D) 7°C

The new temperature is -7°C after the drop.

Which of the following expressions result in a positive integer?

undefined. A) $-4 + 6$ ✓

undefined. B) $5 - 8$

undefined. C) $3 + 2$ ✓

undefined. D) $-7 + 10$ ✓

The expressions that result in a positive integer are $-4 + 6$, $3 + 2$, and $-7 + 10$.

A submarine is at a depth of 300 meters below sea level. It ascends 150 meters. What is its new position relative to sea level?

The new position of the submarine is 150 meters below sea level.

Which of the following expressions is equivalent to $7 - (-3)$?

undefined. A) $7 + 3$ ✓

undefined. B) $7 - 3$

undefined. C) $-7 + 3$

undefined. D) $-7 - 3$

The expression $7 - (-3)$ is equivalent to $7 + 3$.

Analyze the following statements and select those that correctly describe properties of integer operations:

undefined. A) The sum of an integer and its opposite is zero. ✓

undefined. B) SubtractING an integer is the same as adding its opposite. ✓

undefined. C) The product of two negative integers is negative.

undefined. D) Zero is the identity element for addition. ✓

Correct statements include that the sum of an integer and its opposite is zero and subtractING an integer is the same as adding its opposite.

Explain why subtractING a negative integer is equivalent to adding a positive integer.

SubtractING a negative integer changes the operation to addition, thus making it equivalent to adding a positive integer.

Part 4: Evaluation and Creation

Which of the following scenarios correctly applies the concept of integer subtraction?

undefined. A) A bank account balance decreases by \$50 after a deposit.

undefined. B) A temperature increases by 10°C when it drops by 10°C .

undefined. C) A mountain climber descends 200 meters and then ascends 200 meters, returning to the original height. ✓

undefined. D) A vehicle moves forward 10 meters and then reverses 10 meters, ending up 20 meters from the start.

The scenario where a mountain climber descends 200 meters and then ascends 200 meters, returning to the original height, correctly applies integer subtraction.

Create an expression that represents the following scenario: A hiker starts at an elevation of 100 meters, climbs 50 meters, descends 30 meters, and then climbs another 20 meters.

undefined. A) $100 + 50 - 30 + 20$ ✓

undefined. B) $100 - 50 + 30 - 20$

undefined. C) $100 + 50 + 30 + 20$

undefined. D) $100 - 50 - 30 + 20$

The correct expression is $100 + 50 - 30 + 20$.

Design a real-world problem involving the addition and subtraction of integers, and provide a solution.

An example could be a bank account where \$200 is deposited and then \$50 is withdrawn, resulting in a balance of \$150.