Divisibility Worksheet Answer Key PDF

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Part 1: Building a Foundation

What is the rule for determining if a number is divisible by 5?

undefined. The number ends in 0 or 5. ✓

undefined. The number is even.

undefined. The sum of the digits is divisible by 5.

undefined. The last two digits form a number divisible by 5.

A number is divisible by 5 if it ends in 0 or 5.

What is the rule for determining if a number is divisible by 5?

undefined. A) The number ends in 0 or 5. ✓

undefined. B) The number is even.

undefined. C) The sum of the digits is divisible by 5.

undefined. D) The last two digits form a number divisible by 5.

A number is divisible by 5 if it ends in 0 or 5.

What is the rule for determining if a number is divisible by 5?

undefined. A) The number ends in 0 or 5. ✓

undefined. B) The number is even.

undefined. C) The sum of the digits is divisible by 5.

undefined. D) The last two digits form a number divisible by 5.

A number is divisible by 5 if it ends in 0 or 5.

Which of the following numbers is divisible by 3?

undefined. 123 ✓
undefined. 456 ✓
undefined. 789 ✓
undefined. 101

The numbers 123, 456, and 789 are divisible by 3.

Which of the following numbers is divisible by 3?

undefined. A) 123 ✓
undefined. B) 456 ✓
undefined. C) 789 ✓
undefined. D) 101

The numbers 123, 456, and 789 are divisible by 3.

Which of the following numbers is divisible by 3?

undefined. A) 123 ✓
undefined. B) 456 ✓
undefined. C) 789 ✓
undefined. D) 101

The numbers 123, 456, and 789 are divisible by 3.

Explain why the number 246 is divisible by 2.

246 is divisible by 2 because it ends in an even number.

Explain why the number 246 is divisible by 2.

246 is divisible by 2 because it ends in an even number.

Explain why the number 246 is divisible by 2.

246 is divisible by 2 because it ends in an even number.

Part 2: Understanding and Interpretation

Why is the number 120 divisible by both 3 and 4?

120 is divisible by 3 because the sum of its digits is 3, and it is divisible by 4 because the last two digits (20) form a number that is divisible by 4.

Why is the number 120 divisible by both 3 and 4?

120 is divisible by 3 because the sum of its digits is 3, and it is divisible by 4 because the last two digits form 20, which is divisible by 4.

Why is the number 120 divisible by both 3 and 4?

120 is divisible by 3 because the sum of its digits is 3, and it is divisible by 4 because the last two digits form 20, which is divisible by 4.

If a number is divisible by 9, what can you infer about its divisibility by 3?

undefined. It is also divisible by 3. ✓
undefined. It is not divisible by 3.
undefined. It may or may not be divisible by 3.
undefined. Divisibility by 9 has no relation to divisibility by 3.

If a number is divisible by 9, it is also divisible by 3.

If a number is divisible by 9, what can you infer about its divisibility by 3?

undefined. A) It is also divisible by 3. ✓
undefined. B) It is not divisible by 3.
undefined. C) It may or may not be divisible by 3.
undefined. D) Divisibility by 9 has no relation to divisibility by 3.

If a number is divisible by 9, it is also divisible by 3.

If a number is divisible by 9, what can you infer about its divisibility by 3?

undefined. A) It is also divisible by 3. ✓

undefined. B) It is not divisible by 3.
undefined. C) It may or may not be divisible by 3.
undefined. D) Divisibility by 9 has no relation to divisibility by 3.

If a number is divisible by 9, it is also divisible by 3.

Which of the following numbers is divisible by both 2 and 5?

undefined. 40 ✓
undefined. 45
undefined. 50 ✓
undefined. 55

The numbers 40 and 50 are divisible by both 2 and 5.

Which of the following numbers is divisible by both 2 and 5?

undefined. A) 40 ✓
undefined. B) 45
undefined. C) 50 ✓
undefined. D) 55

The numbers 40 and 50 are divisible by both 2 and 5.

Which of the following numbers is divisible by both 2 and 5?

undefined. A) 40 ✓
undefined. B) 45
undefined. C) 50 ✓
undefined. D) 55

The numbers 40 and 50 are divisible by both 2 and 5.

Part 3: Application and Analysis

Apply the divisibility rules to determine if 1,234 is divisible by 4.

1,234 is divisible by 4 because the last two digits (34) are not divisible by 4.

Apply the divisibility rules to determine if 1,234 is divisible by 4.

1,234 is divisible by 4 because the last two digits, 34, are not divisible by 4.

Apply the divisibility rules to determine if 1,234 is divisible by 4.

1,234 is divisible by 4 because the last two digits, 34, are not divisible by 4.

A number ends in 0. What can you conclude about its divisibility by 2, 5, and 10?

undefined. Divisible by 2 and 5 only.
undefined. Divisible by 5 and 10 only.
undefined. Divisible by 2, 5, and 10. ✓
undefined. Divisible by 2 and 10 only.

A number that ends in 0 is divisible by 2, 5, and 10.

A number ends in 0. What can you conclude about its divisibility by 2, 5, and 10?

undefined. A) Divisible by 2 and 5 only.
undefined. B) Divisible by 5 and 10 only.
undefined. C) Divisible by 2, 5, and 10. ✓
undefined. D) Divisible by 2 and 10 only.

A number ending in 0 is divisible by 2, 5, and 10.

A number ends in 0. What can you conclude about its divisibility by 2, 5, and 10?

undefined. A) Divisible by 2 and 5 only.
undefined. B) Divisible by 5 and 10 only.
undefined. C) Divisible by 2, 5, and 10. ✓
undefined. D) Divisible by 2 and 10 only.

A number that ends in 0 is divisible by 2, 5, and 10.

Calculate whether 987 is divisible by 9 using the appropriate rule.

987 is divisible by 9 because the sum of its digits (9 + 8 + 7 = 24) is divisible by 9.

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Calculate whether 987 is divisible by 9 using the appropriate rule.

987 is divisible by 9 because the sum of its digits (9 + 8 + 7 = 24) is divisible by 9.

Break down the number 1,056 to check its divisibility by 7 using the subtraction method.

To check 1,056 for divisibility by 7, you can subtract multiples of 7 from it until you reach a manageable number.

Part 4: Evaluation and Creation

Break down the number 1,056 to check its divisibility by 7 using the subtraction method.

To check if 1,056 is divisible by 7, you can use the subtraction method and find that it is not divisible.

Break down the number 1,056 to check its divisibility by 7 using the subtraction method.

To check if 1,056 is divisible by 7, you can use the subtraction method and find that it is not divisible.

Evaluate the number 2,016 for divisibility by 2, 3, 4, 6, 8, and 9. Provide a detailed explanation for each rule applied.

2,016 is divisible by 2, 3, 4, 6, 8, and 9, and each rule can be explained based on the last digits and the sum of the digits.

Evaluate the number 2,016 for divisibility by 2, 3, 4, 6, 8, and 9. Provide a detailed explanation for each rule applied.

2,016 is divisible by 2, 3, 4, 6, 8, and 9 based on the respective rules.

Evaluate the number 2,016 for divisibility by 2, 3, 4, 6, 8, and 9. Provide a detailed explanation for each rule applied.

2,016 is divisible by 2, 3, 4, 6, 8, and 9 based on the respective rules.

Create a number that is divisible by 3, 5, and 10, and explain your process.

A number like 150 is divisible by 3, 5, and 10 because it meets the criteria for each.

Create a number that is divisible by 3, 5, and 10, and explain your process.

A number like 150 is divisible by 3, 5, and 10 because it meets the criteria for each rule.

Create a number that is divisible by 3, 5, and 10, and explain your process.

A number like 150 is divisible by 3, 5, and 10 because it meets the criteria for each.

Propose a real-world scenario where understanding divisibility rules could be beneficial, and explain how you would apply these rules.

Understanding divisibility rules can help in budgeting, sharing items evenly, or organizing groups.

Propose a real-world scenario where understanding divisibility rules could be beneficial, and explain how you would apply these rules.

Understanding divisibility rules can help in scenarios like dividing items evenly among groups.

Propose a real-world scenario where understanding divisibility rules could be beneficial, and explain how you would apply these rules.

Understanding divisibility rules can help in budgeting, sharing items evenly, or organizing groups.