Grade: 5 **Category:** Factoring **Sub Category:** Divisibility Rules **Worksheet #:** 1Q

How do you know if a number is divisible by the following numbers?
Write the rule and give an example.

Number	Rule
2	
3	
4	
5	
6	
7	

Number	Rule
8	
9	
10	

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Number	Rule
1	The divisibility rule for 1 is straightforward: every number is divisible by 1. There are no conditions or exceptions. When you divide any number by 1, the result is always the number itself. For example: 50 divided by 1 equals 50. 121 divided by 1 equals 121.
2	If the last digit in the number is even then it is completely divisible by 2. e.g. 12, 18, 24,28,126, all end in even numbers, so all are divisible by 2.
3	The divisibility rule for 3 states that a whole number is divisible by 3, which means if the sum of all its digits is exactly divisible by 3. e.g. The sum of the digits of 2130 is 2+1+3+0 = 6 which is divisible by 3, so 2130 is divisible by 3.
4	If either of the following conditions is met: 1) if the last two digits of the number are zeros(i.e., the number ends in "00") EX: 1300 is divisible by 4 because its last two digits are zeros. 2) If the last two digits of the number form a number that is exactly divisible by 4. e.g. the last 2 digits of 1024 is 24, which is divisible by 4,
5	The last digit is 0 or 5. e.g. 500 (last digit is 0) is also divisible by 5. 347835 (last digit is 5) is also divisible by 5.

Number	Rule
6	If it satisfies both of the following conditions: 1) The number must be even, meaning its last digit is one of the even digits (0, 2, 4, 6, or 8). 9156: Condition 1: Ends with an even digit (6), so it's divisible by 2. Condition 2: Sum of digits = 9 + 1 + 5 + 6 = 21 (divisible by 3). Conclusion: 9156 is divisible by 6. 2) The sum of all its digits must be exactly divisible by 3. 825: Condition 1: Ends with an odd digit (5), so it's not divisible by 2. Condition 2: Sum of digits = 8 + 2 + 5 = 15 (divisible by 3).
7	If the last digit of the number is doubled and subtracted from the rest of the number and this difference is divisible by 7 e.g Consider the number 798: The unit digit is 8. If we double the unit digit, we get 16. The remaining part of the number is 79. Now, calculate the difference: 79−16=63. Since 63 is a multiple of 7 (i.e., 9×7=63), the given number 798 is divisible by 7.
8	If the last three digits of a number are divisible by 8 e.g In the number 4832, the last three digits are 832, which is divisible by 8. Therefore, 4832 is completely divisible by 8
10	if its last digit is 0. e.g 20,450,100

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Place a checkmark in the box if the number on the left is divisible by the number above

Divisible By What Numbers							
Number	**2**	**3**	**4**	**5**	**6**	**9**	**10**
1,170							
540							
33,345							
4,776							
98,765							

Grade: 5 **Category:** Factoring **Sub Category:** Divisibility Rules **Worksheet #:** 1A

Place a checkmark in the box if the number on the left is divisible by the number above

Divisible By What Numbers							
Number	**2**	**3**	**4**	**5**	**6**	**9**	**10**
1,170	✔	✔		✔	✔	✔	✔
540	✔	✔	✔	✔	✔	✔	✔
33,345		✔		✔		✔	
4,776	✔	✔	✔		✔		
98,765				✔			

Grade: 5 **Category:** Factoring **Sub Category:** Divisibility Rules **Worksheet #:** 2Q

Place a checkmark in the box if the number on the left is divisible by the number above

Divisible By What Numbers							
Number	**2**	**3**	**4**	**5**	**6**	**9**	**10**
111							
87,606							
7,540							
405							
6,840							

Grade: 5 **Category:** Factoring **Sub Category:** Divisibility Rules **Worksheet #:** 2A

Place a checkmark in the box if the number on the left is divisible by the number above

Divisible By What Numbers							
Number	**2**	**3**	**4**	**5**	**6**	**9**	**10**
111		✔					
87,606	✔	✔			✔	✔	
7,540	✔		✔	✔			✔
405		✔		✔		✔	
6,850	✔			✔			✔

Grade: 3 **Category:** Fraction Word Problems **Sub Category:** Adding and Subtracting Fractions **Worksheet #:** 3Q

Sarah baked cookies to take to school for her birthday. She ate 1/10 of the cookies and handed out 4/5 of the cookies. What fraction of the cookies were leftover for Sarah to take back home?
Sally takes strawberries to her soccer practice and eats 1/6 of them on the car ride to practice. She eats 5/12 of the strawberries during practice. What fraction of the strawberries did Sally not eat?
John brought 7/20 gallons of juice to the party and Sheldon brought 4/5 gallons of juice to the party. How much juice did both John and Sheldon bring together?
George has 7/10 of his pizza leftover from last night and he eats half of the remaining amount for lunch. What fraction of the pizza did George not eat yet?

Grade: 3 **Category:** Fraction Word Problems **Sub Category:** Adding and Subtracting Fractions **Worksheet #:** 3A

Sarah baked cookies to take to school for her birthday. She ate 1/10 of the cookies and handed out 4/5 of the cookies. What fraction of the cookies were leftover for Sarah to take back home?

1/10 + 4/5 = 1/10 + 8/10 = 9/10
1 - 9/10 = 10/10 - 9/10 = 1/10 of the cookies

Sally takes strawberries to her soccer practice and eats 1/6 of them on the car ride to practice. She eats 5/12 of the strawberries during practice. What fraction of the strawberries did Sally not eat?

1/6 + 5/12 = 2/12 + 5/12 = 7/12
1 - 7/12 = 12/12 - 7/12 = 5/12 of the strawberries

John brought 7/20 gallons of juice to the party and Sheldon brought 4/5 gallons of juice to the party. How much juice did both John and Sheldon bring together?

7/20 + 4/5 = 7/20 + 16/20 = 23/20 = 1 3/20 gallons of juice

George has 7/10 of his pizza leftover from last night and he eats half of the remaining amount for lunch. What fraction of the pizza did George not eat yet?

7/10 - 1/2 = 7/10 - 5/10 = 2/10 = 1/5 of the pizza