Name _____ Date _____

Divisibility Tables - Step-by-Step Lesson

If the number to the left of each row is divisible by the number at top of each column, we will write YES or NO in each box.

	2	3	4	5	6	9
21						
95						
14						
61						
85						
75						
47						
19						
37						

Explanation:

Before solving the divisibility table, we need to know our divisibility rules.

Divisibility Rules

Divisor	Divisibility Condition	Example
2	The last digit is even (0, 2, 4, 6, or 8).	38 : 8 is even which is divisible by 2.
3	The sum of the digits is divisible by 3. For large numbers, digits may be summed iteratively.	4,053 => 4+0+5+3=12 and 1+2=3. which is clearly divisible by 3.
4	Add the ones digit to twice the tens digit. (All digits to the left of the tens digit can be ignored.)	7,372 : 2 + (2 x 7) = 16 which is clearly divisible by 4.
	The last two digits divisible by 4.	20,516 : 16 is divisible by 4.
	If the tens digit is even, and the ones digit is 0, 4, or 8. If the tens digit is odd, and the ones digit is 2, or 6.	728 : 2 is even, & the last digit is 8. 356 : 3 is odd, & the last digit is 6.

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5	The last digit is 0 or 5.	1,285 : the last digit is 5.
6	If it is divisible by 2 and by 3. 2,562	2,562 : 2 + 5 + 6 + 2 = 15, which it is divisible by 3, and the last digit is even which is divisible by 2, so the number is divisible 6.
9	The sum of the digits is divisible by 9. For large numbers, digits may be summed iteratively.	1,269 => 1+2+6+9=18 and 1+8=9 which is clearly divisible by 9.

If the number to the left of each row is divisible by the number at top of each column then we will write YES or NO in each box.

	2	3	4	5	6	9
21	NO	YES	NO	NO	NO	NO
95	NO	NO	NO	YES	NO	NO
14	YES	NO	NO	NO	NO	NO
61	NO	NO	NO	NO	NO	NO
85	NO	NO	NO	YES	NO	NO
75	NO	YES	NO	YES	NO	NO
47	NO	NO	NO	NO	NO	NO
19	NO	NO	NO	NO	NO	NO
37	NO	NO	NO	NO	NO	NO