

Name : _____

Score : _____

Teacher : _____

Date : _____

Is the **Number** to the left of each row divisible by the **Number** at top of each column? Write YES or NO in each box.

	2	3	4	5	6	9
842						
719						
636						
291						
292						
174						
237						
709						
225						
290						
498						
164						

Divisibility Rules

Divisor	Divisibility Condition	Example
2	The last digit is even (0, 2, 4, 6, or 8).	38 : 2 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.
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 + 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.
8	If the last three digits are divisible by 8, then the entire number is also divisible by 8.	1,024 : 024 is divisible by 8 so, 1,024 is also divisible by 8.
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.

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	2	3	4	5	6	9
842	YES	NO	NO	NO	NO	NO
719	NO	NO	NO	NO	NO	NO
636	YES	YES	YES	NO	YES	NO
291	NO	YES	NO	NO	NO	NO
292	YES	NO	YES	NO	NO	NO
174	YES	YES	NO	NO	YES	NO
237	NO	YES	NO	NO	NO	NO
709	NO	NO	NO	NO	NO	NO
225	NO	YES	NO	YES	NO	YES
290	YES	NO	NO	YES	NO	NO
498	YES	YES	NO	NO	YES	NO
164	YES	NO	YES	NO	NO	NO

