

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
888						
462						
218						
903						
798						
720						
576						
592						
807						
441						
908						
351						



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
888	YES	YES	YES	NO	YES	NO
462	YES	YES	NO	NO	YES	NO
218	YES	NO	NO	NO	NO	NO
903	NO	YES	NO	NO	NO	NO
798	YES	YES	NO	NO	YES	NO
720	YES	YES	YES	YES	YES	YES
576	YES	YES	YES	NO	YES	YES
592	YES	NO	YES	NO	NO	NO
807	NO	YES	NO	NO	NO	NO
441	NO	YES	NO	NO	NO	YES
908	YES	NO	YES	NO	NO	NO
351	NO	YES	NO	NO	NO	YES

