

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 |
|------|---|---|---|---|---|---|
| 1170 | | | | | | |
| 3870 | | | | | | |
| 7371 | | | | | | |
| 7776 | | | | | | |
| 2028 | | | | | | |
| 1424 | | | | | | |
| 5004 | | | | | | |
| 2118 | | | | | | |
| 5670 | | | | | | |
| 1521 | | | | | | |
| 1014 | | | | | | |
| 6210 | | | | | | |

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 |
|------|-----|-----|-----|-----|-----|-----|
| 1170 | YES | YES | NO | YES | YES | YES |
| 3870 | YES | YES | NO | YES | YES | YES |
| 7371 | NO | YES | NO | NO | NO | YES |
| 7776 | YES | YES | YES | NO | YES | YES |
| 2028 | YES | YES | YES | NO | YES | NO |
| 1424 | YES | NO | YES | NO | NO | NO |
| 5004 | YES | YES | YES | NO | YES | YES |
| 2118 | YES | YES | NO | NO | YES | NO |
| 5670 | YES | YES | NO | YES | YES | YES |
| 1521 | NO | YES | NO | NO | NO | YES |
| 1014 | YES | YES | NO | NO | YES | NO |
| 6210 | YES | YES | NO | YES | YES | YES |

