Example: Use the divisibility rules to see which numbers (2 through 10) divide evenly into 1,280.

2 YES

1,280 is an even number and even numbers are divisible by 2.

3 NO

The sum of the digits in 1,280 is 1+2+8+0 = 11. 11 is NOT divisible by 3, so 1,280 is not divisible by 3.

4 YES

The last 2 digits of 1,280 form the number 80. 80 is divisible by 4, so 1,280 is divisible by 4.

5 YES

The last digit of 1,280 is 0, so it is divisible by 5.

6 NO

1,280 is not divisible by both 2 and 3, so it is not divisible by 6.

7 NO

Using division, 1,280 ÷ 7 = 182 with a remainder of 6, so it is not evenly divisible by 7 (since there is a remainder).

8 YES

The last 3 digits of 1,280 form the number 280. 280 is divisible by 8, so 1,280 is divisible by 8.

9 NO

The sum of the digits in 1,280 is 1+2+8+0 = 11. 11 is NOT divisible by 9, so 1,280 is not divisible by 9.

This test could have been skipped, since we already know that 1,280 is not divisible by 3. If a number is not divisible by 3, then it is not divisible by 9.

10 YES

The last digit of 1,280 is 0, so it is divisible by 10.