Divisibility

A number is divisible by another number if the quotient is a whole number and there is no remainder. You can use rules to find out if one number is divisible by another without actually dividing.

Divisibility Rules

Rule	Example
A whole number is divisible by 2 if its ones digit is 0, 2, 4, 6, or 8.	84 is divisible by 2. The ones digit is 4.
A whole number is divisible by 3 if the sum of its digits is divisible by 3.	207 is divisible by 3. 2 + 0 + 7 = 9, and 9 is divisible by 3.
A whole number is divisible by 5 if its ones digit is 0 or 5.	1,425 is divisible by 5. The ones digit is 5.
A whole number is divisible by 6 if it is divisible both by 2 and by 3.	726 is divisible by 6. 7 + 2 + 6 = 15, and 15 is divisible by 3. The ones digit is 6, so 726 is divisible by 2.
A whole number is divisible by 9 if the sum of its digits is divisible by 9.	3,474 is divisible by 9. 3 + 4 + 7 + 4 = 18, and 18 is divisible by 9.
A whole number is divisible by 10 if its ones digit is 0.	12,340 is divisible by 10. The ones digit is 0.

Look at the digit in the ones place. Tell whether the number is divisible by 2.

1. 78 _____   **2.** 112 _____   **3.** 423 _____   **4.** 6,390 _____

Add the digits. Tell whether the number is divisible by 3.

5. 92 _____   **6.** 57 _____   **7.** 381 _____   **8.** 5,264 _____

Add the digits. Tell whether the number is divisible by 9.

9. 486 _____   **10.** 109 _____   **11.** 7,677 _____   **12.** 2,078 _____

Of 2, 3, 5, 6, 9, and 10, list which numbers each number is divisible by.

13. 84 _____   **14.** 270 _____   **15.** 412 _____

16. 6,225 _____   **17.** 151 _____   **18.** 37,368 _____