

4-1 Divisibility and Factors

One integer is **divisible** by another if the remainder is 0 when you divide. These can also be called **factors**. **Factors** divide other numbers exactly.

Divisibility Rules:

Rules:

An integer is divisible by:

2 if it ends in 0, 2, 4, 6, or 8

3 if the sum of its digits is divisible by 3

4 if its last two digits are divisible by 4

5 if it ends in 0 or 5

6 if it is divisible by both 2 and 3

8 if it's divisible by 2, three times.

9 if the sum of its digits is divisible by 9

10 if it ends in 0

Examples:

Is the first number divisible by the second? Explain.

a. 473 by 2 b. 1,035 by 5 c. 113,460 by 10 d. 567 by 3 e. 43,542 by 9

Name the digit(s) to satisfy each divisibility rule.

a. 293, __42