

# Factors, Multiples, and Divisibility

You can use these divisibility rules to determine if a number is divisible by another number.

A whole number is divisible by	Examples
<b>2</b> if the ones digit is 0, 2, 4, 6, or 8.	2, 8, 24, 96, 300
<b>3</b> if the sum of the digits of the number is divisible by 3.	144 $1 + 4 + 4 = 9$ $9 \div 3 = 3$
<b>4</b> if the last two digits of the number are divisible by 4.	124 Last two digits are 24. $24 \div 4 = 6$
<b>5</b> if the ones digit is 0 or 5.	205; 300; 1,005; 270
<b>6</b> if the number is divisible by both 2 and 3.	522 Divisible by 2 because ones digit is 2 Divisible by 3 because $5 + 2 + 2 = 9$ $9 \div 3 = 3$
<b>9</b> if the sum of the digits of the number is divisible by 9.	3,123 $3 + 1 + 2 + 3 = 9$ $9 \div 9 = 1$
<b>10</b> if the ones digit is 0.	20; 40; 150; 2,570

Tell whether each number is divisible by 2, 3, 4, 5, 6, 9, or 10.

1. 25 \_\_\_\_\_      2. 32 \_\_\_\_\_      3. 124 \_\_\_\_\_

Tell whether the first number is a multiple of the second.

4. 45; 2 \_\_\_\_\_      5. 155; 5 \_\_\_\_\_  
6. 240; 6 \_\_\_\_\_      7. 320; 10 \_\_\_\_\_

8. **Number Sense** Name 3 factors of 40. \_\_\_\_\_

There are 100 members in the U.S. Senate. There are 435 members in the U.S. House of Representatives.

9. Is the total number of U.S. senators divisible by 2, 3, 4, 5, 6, 9, or 10?

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10. Could the members of the U.S. House of Representatives be evenly divided into committees with 3 members on each? 5 members on each? 8 members on each?

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