



### Assignment Guide for Problem 1.1

Applications: 1–7 | Connections: 34–35  
Extensions: 41

## Answers to Problem 1.1

- A.**
1. You test the number by dividing it into the original number. If there is a whole-number answer, then the number is a factor of the original number.
  2. You divide the known factor into the original number. The quotient is another factor of the number.
  3. The factors of 18 are 1, 2, 3, 6, 9, and 18. The divisors of 18 are 1, 2, 3, 6, 9, and 18. They are the same. In each case, you can find a whole number that you can multiply by the factor or divisor and get the product 18.

- B.** Answers may vary. Possible answer: 24 has 1, 2, 3, 4, 6, 8, 12, and 24 as factors, while 7 only has 1 and 7 as factors.
- C.** You know that you have found all of the factors of a number when there are no numbers left that are less than the original number and that divide evenly into the original number.

**Note:** Some students may notice that it is enough to test only the numbers that are less than half the original number.