

## Elementary Algebra Skill

### Setting Up and Solving Number Problems Leading to Linear Equations

Set up and solve.

1. A number added to 15 gives 40. Find the number.
2. 8 subtracted from a number yields 15. What is the number?
3. What number multiplied by  $-6$  gives the product 48?
4. This number divided by 12 produces the quotient 40. What is the dividend?
5. The sum of three times a number and 7 is equal to  $-8$ . What is the number?
6. 21 is the difference of 9 and four times a number. Find the number.
7. Twice the sum of a number and 4 is  $-10$ . What is the number?
8. Find a number which when subtracted from 4 times the number yields 36.
9. The sum of twice a number and 7 is equal to the sum of the number and 6. Find the number.
10. The difference of three times a number and 1 is the same as twice the number. Find the number.
11. The sum of 4 times a number and  $-2$  is equal to the sum of 5 times a number and  $-2$ . Find the number.
12. The sum of two consecutive even integers is 6. Find the integers.
13. Find three consecutive integers whose sum is 36.
14. Find three consecutive even integers whose sum is  $-66$ .
15. Find four consecutive odd integers whose sum is 56.
16. The sum of twice a number and 5 is the same as the difference of the number and 2. Find the number.
17. Twice the difference of a number and 7 equals 2 less than three times the number. What is the number?
18. A number added to two times the sum of 3 and the number yields 14 less the number. Find the number.
19. Three times the sum of a number and 5 added to twice the difference of 6 and the number gives 15. What is the number?
20. Half the difference of twice a number and 6 is the same as one-fourth the sum of the number and 3. What is the number?

## **Answers to Setting Up and Solving Number Problems Leading to Linear Equations**

- 1) 25
- 2) 23
- 3) -8
- 4) 480
- 5) -5
- 6) -3
- 7) -9
- 8) 12
- 9) -1
- 10) 1
- 11) 0
- 12) 2 and 4
- 13) 11, 12, 13
- 14) -24, -22, -20
- 15) 11, 13, 15, 17
- 16) -7
- 17) -12
- 18) 2
- 19) -12
- 20) 5