

Ch-11 Algebra

1. Write an algebraic expression for each of the following using signs and symbols:

(a) 3 more than a number x

(b) One third of the sum of x and y

(c) Sum of numbers a and b subtracted from the product of x and y .

2. Ranjit scores 80 marks in English and x marks in Hindi. What is his total score in two subjects?

3. Write the following statements as an equation:

(a) 5 times a number equals 40.

(b) 3 less than 4 times a number is 17.

(c) If 12 is subtracted from a number, the result is 24.

(d) Twice a number subtracted from 19 is 11.

4. Verify by substitution that

(a) the root of $3x - 5 = 7$ is $x = 4$.

(b) the solution of $8 - 7y = 1$ is $y = 1$.

5. Solve the following:

(a) $x - 7 = 10$ [Ans $x = 17$]

(b) $4x = 28$ [Ans $x = 7$]

(c) $\frac{1}{2}x + 7 = 11$ [Ans $x = 8$]

(d) $2y + 4 = 3$ [Ans $y = -\frac{1}{2}$] [$y = -\frac{1}{2}$]

(e) $11 + x = 19$ [Ans $x = 8$]

6. Set up an equation and solve to find the value of the unknown:

(a) If 9 is added to a certain number, the result is 36, find the number. (Ans: 27)

(b) If 11 is subtracted from 4 times a number, the result is 89. Find the number. (Ans 25)

(c) If a number is tripled, and the result is increased by 5, we get 50. Find the number. (Ans 15)

(d) Reena is 6 years older than her brother Jay. If the sum of their ages is 28 years, find their present ages. (Ans 11, 17)

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