Lesson 6

Solving Equations with Variables on Both Sides

Answers

1) 2x + 7 = 19, 2x = 12, x = 6

2) 3y – 5 = 10, 3y = 15, y = 5

3) 3m + 1 = 16, 3m = 15, m = 5

4) 3n + 6 = n + 14, 2n = 8, n = 4

5) 4a – 4 = 12, 4a = 16, a = 4

6) 2x + 10 = 3x – 6, 10 + 6 = x, x = 16

7) 5w – 5 = 2w + 10, 3w = 15, w = 5

8) 3x – 3 = 9, 3x = 12, x = 4

9) 4y + 4 = 2y + 14, 2y = 10, y = 5

10) 2m = 12, m = 6

11) 6n – 12 = 2n + 12, 4n = 24, n = 6

12) 6x – 7 = 11, 6x = 18, x = 3

13) 6a + 3 = 5a + 7, a = 4

14) 5p – 5 = 20, 5p = 25, p = 5

15) 8x – 6 = 6x + 12, 2x = 18, x = 9

16) 7y + 14 = 4y + 20, 3y = 6, y = 2

17) Variables cancel: 3 = 7 -> No solution

18) 8x – 4 = 8x – 4 -> Always true; infinitely many solutions

19) 3x + 10 = 5x – 2, 12 = 2x, x = 6

20) 40 + 25h = 10 + 35h, 30 = 10h, h = 3 hours