

Section 3.4 – Putting It All Together

Problem Set 1

Solve the following equations.

1. $3x + 3 = 5x + 1$

2. $7x + 3 = 3x - 5$

3. $3y + 1 = 6y - 5$

4. $2(x - 2) = 7x - 14$

5. $2x + 4(x - 1) = 3x - 1$

6. $-2(y - 2) - y = 2y - 5$

7. $4x + 10.6 = 4.1x - 7$

8. $4x - x + x = 16$

9. $5.1x + 7.8 = 3.2$

10. $-3(b + 1) - 1 = 3(2b - 2) + b$

11. $3x + x = 5x + 1$

12. $-4.1x - 2 = 2.4x - 6$

13. $\frac{3x}{2} + 4 = 9$

14. $x - \frac{5}{2} = \frac{3}{2}(2x - 1)$

15. $\frac{4}{3}x - \frac{1}{3} = 2(x + 5)$

16. $\frac{4}{3}x - \frac{1}{3} = x + 2$

17. $3x - 5 = 4x - 3$

18. $-3c + 1 = 1 - 7c$

19. $3y + 12 = 3(y - 1) + 2y$

20. $5.1x + 4 = 3x$

21. $3x - 6 = 2(3x + 2) - 4x$

Write an algebraic equation for the following statements and solve it.

22. six more than three times a number is eighteen

23. five more than seven less than a number is four more than the number

24. six more than a number plus three is half the number

25. three more than a number is seven less than twice the number