

Paper Practice 2.4**Solving Equations with the Variable on Each Side****Solve each equation. Check your solution.**

1. $6v - 4 = -3v + 59$

2. $-t + 7 = 3t + 15$

3. $8b + 5 = 12b - 27$

4. $-4w + 3 = w - 27$

5. $\frac{2n+2}{8} = \frac{n}{3}$

6. $\frac{4x+10}{2} = -3x$

7. $9(g - 4) = 2g - 1$

8. $-5(-a - 1) = 3a - 7$

9. $6 + 3(y + 4) = 2(y + 1) + 11$

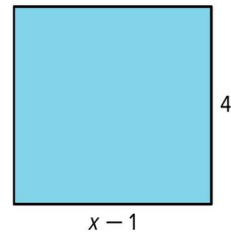
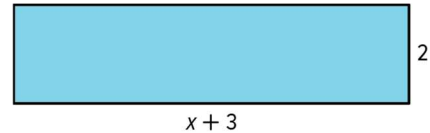
10. $8(q - 2) = 44 + 5(2q - 12)$

11. PUMPKINS Kelly and Gemma each pick a pumpkin from the pumpkin patch. Kelly's pumpkin weighs 5 pounds more than twice the weight of Gemma's pumpkin. Kelly's pumpkin also weighs 25 pounds less than 4 times the weight of Gemma's pumpkin. Write and solve an equation to find the weights of the pumpkins.

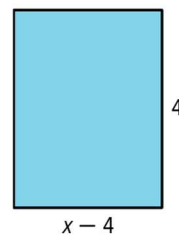
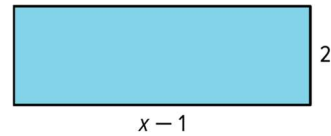
12. SNOWFALL In February 2015, South Bend, Indiana, saw one of its snowiest Februaries on record. The snowfall in February 2015 was 0.6 inch more than twice the snowfall in February 2020. The snowfall in February 2015 was also 8.35 inches fewer than 2.5 times the snowfall in February 2020. Write and solve an equation to find the amount of snowfall in February 2015 and in February 2020.

Example 5

- 13. GEOMETRY** Write and solve an equation to find the value of x so that the figures have the same area.



- 14. GEOMETRY** Write and solve an equation to find the value of x so that the figures have the same area.



Solve each equation, and state whether the equation has *one solution*, *no solution*, or is an *identity*.

15. $5p + 7 = -7 + 5p$

16. $4(x + 3) = 4x + 12$

17. $-9h + 11 = 3(3h + 6)$

18. $6b + 5 - 2b = 4(b + 5)$

19. $6(a + 2) = 3(1 - 2a)$

20. $9y + 8 = 4(y + 2) + 5y$