

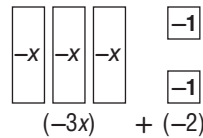
Lesson 7 - Subtract Linear Expressions

When subtracting expressions, subtract like terms. You can use models or the additive inverse.

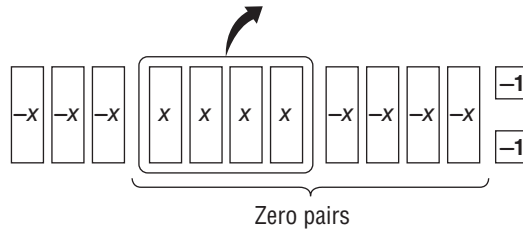
Example 1

Find $(-3x - 2) - (4x)$.

Step 1 Model the expression $-3x - 2$.



Step 2 Since there are no positive x -tiles to remove, add four zero pairs of x -tiles. Remove four positive x -tiles.



So, $(-3x - 2) - (4x) = -7x - 2$.

Example 2

Subtract $(4x + 6) - (-7x + 1)$.

The additive inverse of $-7x + 1$ is $7x - 1$.

$$\begin{array}{r} 4x + 6 \\ + 7x - 1 \\ \hline 11x + 5 \end{array}$$

Arrange like terms in columns.
Add.

So, $(4x + 6) - (-7x + 1) = 11x + 5$.

Exercises

Subtract. Use models if needed.

1. $(9x + 10) - (2x + 4)$ **$7x + 6$**
2. $(3x + 4) - (2x - 5)$ **$x + 9$**
3. $(6x + 3) - (-x - 2)$ **$7x + 5$**
4. $(4x - 1) - (x + 3)$ **$3x - 4$**
5. $(3x - 1) - (2x - 6)$ **$x + 5$**

Lesson 7 Skills Practice

Subtract Linear Expressions

Subtract. Use models if needed.

1. $(5x + 7) - (x + 2)$ **$4x + 5$**

3. $(-x + 12) - (-4x + 2)$ **$3x + 10$**

5. $(-x + 3) - (4x - 10)$ **$-5x + 13$**

7. $(-7x + 1) - (4x - 5)$ **$-11x + 6$**

9. $(-9x + 1) - (-7x + 8)$ **$-2x - 7$**

11. $(-9x - 12) - (x - 8)$ **$-10x - 4$**

13. $(5x - 1) - (-3x + 7)$ **$8x - 8$**

15. $(11x + 2) - (-8x - 2)$ **$19x + 4$**

17. $(x - 2) - (x - 6)$ **4**

19. $(2x + 4) - (5x - 2)$ **$-3x + 6$**

21. **GEOMETRY** The perimeter of the triangle shown is $(10x + 1)$ feet. Find the length of the missing side. **$(2x - 3)$ ft**

