Multiplying Binomials

1

-1

x2

-x

x

-x

x

-x2

Student Activity

Algebra tiles can help you visualize what’s actually happening when you multiply two algebraic expressions. Answer the questions below. Tips: Be sure the tile and not the text is selected when making a copy. You can:

* Right click and copy
* Select the tile and press Ctrl + D
* Use the Ctrl + C, Ctrl + V copy and paste short cuts or
* Hold the Ctrl key down while dragging a tile which also makes a copy of the original
1. List the number, types and colors of tiles you would need to model (x – 2) (x + 7).
2. List the number and types of tiles you would need to model –x(x - 6).

3. Multiply (x + 1)(x + 5) 4. Multiply (x – 7)(x + 3)

 (x + 5) (x + 3)

(x + 1) (x – 7)

5. Multiply (x - 2)(x - 4) 6. Multiply (x – 4)(x + 4)

 (x - 4) (x + 4)

(x - 2) (x – 4)

7. Multiply -x(x - 4) 8. Multiply (x – 3)2

 (x - 4) (x -3)

-x (x – 3)

**Extension**

Find the product without using Algebra tiles if possible.

9. (x – 5) (x + 3) 10. (x + 2) (x + 8)

11. What are the benefits of using Algebra tiles?

12. What negatives are associated with using Algebra tiles to multiply algebraic expressions?