Methods of Multiplying

**Method 1: Box Method (also called Area Method)**

1. (x + 7)(x + 3)

|  |  |  |
| --- | --- | --- |
|  | x | +3 |
| x |  |  |
| +7 |  |  |

2. (8x + 7)(x – 1)

|  |  |  |
| --- | --- | --- |
|  | x | -1 |
| 8x |  |  |
| +7 |  |  |

3. (5x + 2)(x² + 4x – 6)

|  |  |  |  |
| --- | --- | --- | --- |
|  | x² | +4x | -6 |
| 5x |  |  |  |
| +2 |  |  |  |

Solve the area problem by first figuring out the missing terms then adding.

4.

|  |  |  |
| --- | --- | --- |
|  |  | +9 |
| x | x² |  |
|  |  | 18 |

5.

|  |  |  |
| --- | --- | --- |
|  |  |  |
| x |  | +4x |
| -4 | -4x |  |

6.

|  |  |  |
| --- | --- | --- |
|  |  | 3 |
| x | x$²$ |  |
|  |  | 12 |

**Method 2: The Highly Acclaimed FOIL Method!!!**

 **First Outer Inner Last**

7. (6x + 1)(5x – 4)

8. (4x + 8)(x – 2)

9. (x – 5)(x + 5)

10. (x + 7)(x – 7)

11. (x + 6)(x + 6)

12. (2x + 3)(2x – 3)

**Method 3: Just straight up Distributive Property**

13. (5x – 8)(x² + 2x – 7)