Name _____ Class _____ Date _____

Reteaching 8-3

Multiplying Binomials

OBJECTIVE: Multiplying binomials

MATERIALS: None

To multiply two binomials, follow these steps:

- Multiply each term in one binomial by each term of the other binomial. Drawing arrows as a visual reminder of what to do is a helpful technique.
- Circle like terms and combine.

Example

Find the product $(x + 7)(x + 2)$.

$(x + 7)(x + 2)$ ← **Draw arrows from the first term in the first binomial to both terms in the second binomial.**

$x^2 + 2x$ ← **Multiply each term of the second binomial by *x*.**

$(x + 7)(x + 2)$ ← **Draw arrows from the second term in the first binomial to both terms in the second binomial.**

$7x + 14$ ← **Multiply each term of the second binomial by 7.**

$x^2 + 2x + 7x + 14$ ← **Add the two expressions.**

$x^2 + 2x + 7x + 14$ ← **Circle like terms and combine.**

$x^2 + 9x + 14$ ← **Solution**

Exercises

Use arrows as shown above to simplify each product.

1. $(x + 6)(x - 2)$ **2.** $(x - 8)(x - 4)$ **3.** $(x - 3)(x + 9)$

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

Simplify each product.

7. $(7x + 4)(2x - 4)$ **8.** $(3x + 2)(3x + 2)$ **9.** $(5x + 1)(x + 1)$

10. $(2x + 1)(x + 1)$ **11.** $(4x + 1)(2x - 1)$ **12.** $(3x - 1)(x + 2)$

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