

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 is a visual reminder of what to do in a helpful technique.
- Circle like terms and combine.

Example

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

$$(x + 7)(x + 2)$$

$$x^2 + 2x$$

$$(x + 7)(x + 2)$$

$$7x + 14$$

$$x^2 + 2x + 7x + 14$$

$$x^2 + \textcircled{2x} + \textcircled{7x} + 14$$

$$x^2 + 9x + 14$$

— Draw arrows from the first term in the first binomial to both terms in the second binomial.

— Multiply each term of the second binomial by x .

— Draw arrows from the second term in the first binomial to both terms in the second binomial.

— Multiply each term of the second binomial by 7.

— Add the two expressions.

— Circle like terms and combine.

— 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. $(x + 4)(2x + 3)$

Simplify each product.

7. $(7x + 4)(2x + 4)$

8. $(3x + 2)(5x + 2)$

9. $(3x + 8)(x + 1)$

10. $(2x + 1)(x + 1)$

11. $(4x + 1)(2x + 1)$

12. $(3x + 3)(x + 2)$

3 8 Reteaching Transforming Polynomials

Victor M. Corman



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Table of Contents 3 8 Reteaching Transforming Polynomials

1. Understanding the eBook 3 8 Reteaching Transforming Polynomials
 - The Rise of Digital Reading 3 8 Reteaching Transforming Polynomials
 - Advantages of eBooks Over Traditional Books
2. Identifying 3 8 Reteaching Transforming Polynomials
 - Exploring Different Genres
 - Considering Fiction vs. Non-Fiction
 - Determining Your Reading Goals
3. Choosing the Right eBook Platform
 - Popular eBook Platforms
 - Features to Look for in an 3 8 Reteaching Transforming Polynomials
 - User-Friendly Interface
4. Exploring eBook Recommendations from 3 8 Reteaching Transforming Polynomials
 - Personalized Recommendations
 - 3 8 Reteaching Transforming Polynomials User Reviews and Ratings
 - 3 8 Reteaching Transforming Polynomials and Bestseller Lists
5. Accessing 3 8 Reteaching Transforming Polynomials Free and Paid eBooks
 - 3 8 Reteaching Transforming Polynomials Public Domain eBooks
 - 3 8 Reteaching Transforming Polynomials eBook Subscription Services

- 3 8 Reteaching Transforming Polynomials Budget-Friendly Options
- 6. Navigating 3 8 Reteaching Transforming Polynomials eBook Formats
 - ePub, PDF, MOBI, and More
 - 3 8 Reteaching Transforming Polynomials Compatibility with Devices
 - 3 8 Reteaching Transforming Polynomials Enhanced eBook Features
- 7. Enhancing Your Reading Experience
 - Adjustable Fonts and Text Sizes of 3 8 Reteaching Transforming Polynomials
 - Highlighting and Note-Taking 3 8 Reteaching Transforming Polynomials
 - Interactive Elements 3 8 Reteaching Transforming Polynomials
- 8. Staying Engaged with 3 8 Reteaching Transforming Polynomials
 - Joining Online Reading Communities
 - Participating in Virtual Book Clubs
 - Following Authors and Publishers 3 8 Reteaching Transforming Polynomials
- 9. Balancing eBooks and Physical Books 3 8 Reteaching Transforming Polynomials
 - Benefits of a Digital Library
 - Creating a Diverse Reading Collection 3 8 Reteaching Transforming Polynomials
- 10. Overcoming Reading Challenges
 - Dealing with Digital Eye Strain
 - Minimizing Distractions
 - Managing Screen Time
- 11. Cultivating a Reading Routine 3 8 Reteaching Transforming Polynomials
 - Setting Reading Goals 3 8 Reteaching Transforming Polynomials
 - Carving Out Dedicated Reading Time
- 12. Sourcing Reliable Information of 3 8 Reteaching Transforming Polynomials
 - Fact-Checking eBook Content of 3 8 Reteaching Transforming Polynomials
 - Distinguishing Credible Sources
- 13. Promoting Lifelong Learning
 - Utilizing eBooks for Skill Development
 - Exploring Educational eBooks
- 14. Embracing eBook Trends

- Integration of Multimedia Elements
- Interactive and Gamified eBooks

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