Name:	Date:
Topic:	Class:

Main Ideas/Questions	Notes/Examples

Multiplying Binomials

To multiply binomials, distribute each term in the first binomial to each term in the other binomial, then combine like terms. This order of distributing is frequently referred to as the **"FOIL"** method.

First Outer, Inner Last

$$(a+b)(c+d) = ac + ad + bc + bd$$

Example 1: $(x + 2)(x + 4)$

Example 2: $(2x + 1)(x - 5)$

Directions: Find each product. Final answers must be in standard form.

1. $(y + 8)(y + 1)$

3. $(x - 10)(x - 4)$

5. $(4x - 7)(x + 3)$

7. $(3y + 1)(3y + 2)$

9. $(8h - 3)(3h - 1)$

11. $(5x + 4y)(x - y)$

13. $(2r + s)(2r - s)$

15. $(x + 4)^2$

17. $(2m - 5)^2$

Binomial ⓧ Trinomial

Directions: Find each product. Final answers must be in standard form.

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

20. $(k - 5)(k^2 - k - 8)$

21. $(3a + 1)(5a^2 + 2a - 6)$

22. $(2v + 3)(4v^2 - 3v - 6)$

Geometric Application

23. Find the area of the shaded region as a simplified expression.