

Multiplying Binomials - Handout

Multiply:

EXAMPLE: $(x + 3)(x + 1) = x^2 + 4x + 3$ (use FOIL)

1. $(x + 2)(x + 5) =$

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

3. $(x - 3)(x + 2) =$

4. $(x + 10)(x - 6) =$

5. $(y - 5)(y - 3) =$

6. $(y - 4)(y + 4) =$

7. $(B - 2)(B + 9) =$

8. $(9 + a)(8 + a) =$

9. $(2x + 1)(x + 3) =$

10. $(3k - 2)(k + 5) =$

11. $(2m + 7)(4m - 1) =$

12. $(5y + 6)(-3y + 4) =$

13. $(3 - 8h)(10 + 4h) =$

Square the binomial:

EXAMPLE: $(x + 4)^2 = (x + 4)(x + 4) = x^2 + 8x + 16$

14. $(x + 3)^2 =$

(over)

15. $(x + 6)^2 =$

p. 2

16. $(y - 5)^2 =$

17. $(n - 9)^2 =$

18. $(11 + x)^2 =$

19. $(k - 10)^2 =$

20. $(2x + 5)^2 =$

21. $(3y - 4)^2 =$

Multiply with the Sum and Difference Pattern (Difference of Two Squares)

EXAMPLE: $(x + 5)(x - 5) = x^2 - 25$ (the middle term cancels out)

22. $(x + 3)(x - 3) =$

23. $(x - 7)(x + 7) =$

24. $(y + 8)(y - 8) =$

25. $(m - 10)(m + 10) =$

26. $(w + 4)(w - 4) =$

28. $(2x + 1)(2x - 1) =$

29. $(2a - 6)(2a + 6) =$

30. $(3x - y)(3x + y) =$