Section 7.2 Multiplying Polynomials

FOIL method used when multiplying 2 binomials

First - Outside - Inside - Last

Extra Practice

In exercises 1–6, use the Distributive Property to find the product. (Split and Copy)

1. $(x - 2)(x - 1)$

$x(x-1) \quad -2(x-1)$

$x^2 - x \quad -2x + 2$

$x^2 - 3x + 2$

2. $(b - 3)(b + 2)$

3. $(b - 3)(b + 2)$

4. $(a - 1)(2a + 5)$

$a(2a+5) \quad -1(2a+5)$

$2a^2 + 5a - 2a - 5$

$2a^2 + 3a - 5$

5. $(3n - 4)(n + 1)$

6. $(r + 3)(3r + 2)$

In Exercises 7–12, use a table to find the product.

7. $(x - 3)(x - 2)$

	x	-2
x	x^2	$-2x$
-3	$-3x$	$+6$

$x^2 - 5x + 6$

8. $(y + 1)(y - 6)$

9. $(q + 3)(q + 7)$

10. $(2w - 5)(w - 3)$

	w	-3
$2w$	$2w^2$	$-6w$
-5	$-5w$	15

$2w^2 - 11w + 15$

11. $(6h - 2)(-3 - 2h)$

12. $(-3 + 4j)(3j + 4)$

In Exercises 13–18, use the FOIL Method to find the product.

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

O F I L

$x^2 - 3x + 2x - 6$

$x^2 - x - 6$

14. $(z + 3)(z + 2)$

15. $(h - 2)(h + 4)$

16. $(2m - 1)(m + 2)$

O F I L

$2m^2 + 4m - 1m - 2$

$2m^2 + 3m - 2$

17. $(4n - 1)(3n + 4)$

18. $(-q - 1)(q + 1)$

In Exercises 19–24, find the product.

19. $(x - 2)(x^2 + x - 1)$

* SPLIT and COPY *

$x(x^2 + x - 1) \quad -2(x^2 + x - 1)$

$x^3 + x^2 - x - 2x^2 - 2x + 2$

$x^3 - x^2 - 3x + 2$

20. $(2 - a)(3a^2 + 3a - 5)$

* Table *

	$3a^2$	$3a$	-5
2	$6a^2$	$6a$	-10
$-a$	$-3a^3$	$-3a^2$	$5a$

$-3a^3 + 3a^2 + 11a - 10$

21. $(h + 1)(h^2 - h - 1)$

* "FOIL" *

$h^3 - h^2 - h + h^2 - h - 1$

$h^3 - 2h - 1$

22. $(d + 3)(d^2 - 4d + 1)$

23. $(3n^2 + 2n - 5)(2n + 1)$

24. $(2p^2 + p - 3)(3p - 1)$