

Study Guide

Special Products

You can use the FOIL method to find some special products.

Square of a Sum	$(a + b)^2 = (a + b)(a + b) = a^2 + 2ab + b^2$
Square of a Difference	$(a - b)^2 = (a - b)(a - b) = a^2 - 2ab + b^2$
Difference of Squares	$(a + b)(a - b) = (a - b)(a + b) = a^2 - b^2$

Study the examples below.

Binomials	Product
$(3n + 4)^2$	$9n^2 + 24n + 16$
$(2z - 9)^2$	$4z^2 - 36z + 81$
$(5x - 3y)(5x + 3y)$	$25x^2 - 9y^2$

Find each product.

1. $(x - 6)^2$

2. $(3p + 4)^2$

3. $(x + 11)(x - 11)$

4. $(2x + 3)(2x - 3)$

5. $(4x - 5)^2$

6. $(9x - y)(9x + y)$

7. $(m + 5)^2$

8. $(8a - 7b)(8a + 7b)$

9. $(4a - 3b)^2$

10. $(3 - 5q)(3 + 5q)$

11. $(x^2 - 2)^2$

12. $(2.5 + q)^2$

13. $\left(\frac{3}{4}x + 1\right)\left(\frac{3}{4}x - 1\right)$

14. $(0.3p - 2q)^2$

15. $\left(\frac{1}{2}y + z\right)^2$

16. $(8 + x)^2$

17. $(6c - 10)(6c + 10)$

18. $(x^3 - 1)^2$