Products of Polynomials

X problems are XC

$$(x - 3)(x^2 - 2x + 4) = x(x^2 - 2x + 4) - 3(x^2 - 2x + 4) = x^3 - 2x^2 + 4x - 3x^2 + 6x - 12$$
$$= x^3 - 5x^2 + 10x - 12$$

Use the distributive property to multiply the polynomials.

1. $(3x + y)(3x - 2y) =$

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

3. $(3x + y)(2x^2 + 3x + 4y) =$

4. $5b(4b^3 - 4b^2 - 6) =$

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

6. $(x + y)(3x + y) =$

7. $(3x - 3)(x - 9) =$

8. $(2b - 8)(3b - 7) =$

9. $(3x^2 - x)(2x - x^2) =$

10. $(x + 3)(3 + x) =$

11. $(4a + 1)(4a + 1) =$

12. $(-2x^3 + 4)(2x^2 + 5) =$

13. $(4x + 3)(x + 6) =$

14. $(4x^2 - 4y^2)(4x^2 + 4y^2) =$

15. $(x - y)(2x^2 + 2y^2) =$

16. $(5b - 2)(3b^3 + 5b^2 + 2) =$

17. $-3x^2(4x^2 - 3x + 3) =$

18. $(3x^4 - 5x^2 - 4)(-3x^3) =$

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

20. $(3x + 3)(2x - 4) =$