Name _____ Date _____

**Polynomials**

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