

Lesson #9 A: Multiplying Polynomials and Special Product Polynomials
(Reference: Lesson #19 in book)**Problem**

1. Please multiply each of the following polynomials and then get your answer into standard form.

1. $2xy^2(4x^4y - 3x^2y + xy)$

2. $-7x^2y^2(2xy + 4x^3y^2 + 1)$

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

4. $(6xy - 3x^3y)(x^4y^2 + xy)$

5. $(3xy - x)(2x^3y - 3xy^2 + x)$

6. $(4x^4y - 3x^2y + xy)(x^3y^2 - xy)$

7. $(3x^2y - x)(2x^2y^2 + 3xy - 5)$

8. $x^3y(4x^3y^2 + 3x^2y + 4)(5x^3y^2 + 3x^2y - xy)$

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

10. $(3x^3y^3 - x^2y)^2$

11. $(4x^2y^3 - 3xy^2 + 1)^2$

12. $(3x^3y^2 + 2xy)^3$