

**Math 0408 -Learning Outcome:
Multiply Polynomial Expressions**

1. $2x(6x^2 - 5x + 4)$

2. $-3a^2(a^3 - 6a^2 + 7)$

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

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

5. $(x-2)(x^2 - 5x + 7)$

6. $(5a-2b)(a^2 - ab - b^2)$

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

8. $(2x+1)^2$

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

10. $(3x-4)(3x+4)$

11. $(x^n + 2)(3x^n + 1)$

12. $(4x-5)^2$

**Math 0406-Learning Outcome:
Multiply Polynomial Expressions**

Solutions:

1. $2x^3 - 10x^2 + 8x$

2. $3a^5 + 18a^4 - 21a^2$

3. $x^2 - 2x - 15$

4. $2x^2 - x - 21$

5. $x^3 - 7x^2 + 17x - 21$

6. $5a^3 - 7a^2b - 3ab^2 + 2b^3$

7. $x^6 - 2x^3 - 15$

8. $4x^2 + 4x + 1$

9. $x^3 - 27y^3$

10. $9x^2 - 16$

11. $3x^{2n} + 7x^n + 2$

12. $16x^2 - 40x + 25$