

NAME: _____

P.I. A.A.13: Multiply polynomials

Multiply:

1. $(x+4)(x^2-4x+2)$ [A] $x^3-14x+8$ [B] x^2-5x+8 [C] x^3-4x^2+8 [D] $x^3-16x+8$

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

[A] x^3+x^2-4x+6 [B] x^3-2x^2+6 [C] x^3+x^2-6x+6 [D] x^2-3x+6

3. $(-3e^2+e+8)(-9e+8)$

4. $(-8r^2-9r+9)(-5r+1)$

5. $(3x+1)(5x^2+2x-6)$

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

7. Suppose you deposit \$500 in a savings account that has an interest rate r compounded annually. At the end of three years, the value of your account will be $500(1+r)^3$ dollars. Simplify $500(1+r)^3$.

8. Compare the quantities in Column A and Column B.

Column A

the coefficient of x for

the product $(x-2)(x^2+3x+1)$

Column B

the coefficient of x for

the product $(x+2)(x^2-3x-1)$

[A] The quantity in Column A is greater.

[B] The quantity in Column B is greater.

[C] The quantities are equal.

[D] The relationship cannot be determined from the information given.

[1] A

[2] A

[3] $27e^3 - 33e^2 - 64e + 64$

[4] $40r^3 + 37r^2 - 54r + 9$

[5] $15x^3 + 11x^2 - 16x - 6$

[6] $25x^3 - 10x^2 - 38x - 12$

[7] $500 + 1500r + 1500r^2 + 500r^3$

[8] A