

AM: Multiply monomials by polynomials

1. $2y^3(3y^4 + 2y^3 - 6y + 5)$

[A] $6y^7 + 4y^6 - 12y^4 + 10y^3$

[B] $6y^7 + 3y^6 - 6y^4 + 5y^3$

[C] $6y^{12} + 4y^9 - 2y^3$

[D] $5y^7 + 4y^6 - 4y^4 + 7y^3$

$$\begin{aligned} & 2y^3(3y^4) + 2y^3(2y^3) + 2y^3(-6y) + 2y^3(5) \\ & 6y^7 + 4y^6 - 12y^4 + 10y^3 \end{aligned}$$

AM: Multiply monomials by polynomials

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

[A] $-2x^4y + 6x^3y^2 - 10x^2y^4$

[B] $-2x^4y + 6x^3y^2 + 10x^2y^4$

[C] $-2x^4y - 6x^3y^2 + 10x^2y^4$

[D] $-2x^4y - 6x^3y^2 - 10x^2y^4$

$$\begin{aligned} & -2x^2y(x^2) - 2x^2y(-3xy) - 2x^2y(5y^3) \\ & -2x^4y + 6x^3y^2 - 10x^2y^4 \end{aligned}$$

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

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

$$3x^4(x^2-7x+2x-14)$$

$$3x^4(x^2-5x-14)$$

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

$$[3x^3(x) + 3x^3(3)](x-7)$$

$$(3x^4 + 9x^3)(x-7)$$

$$3x^4(x) + 3x^4(-7) + 9x^3(x) + 9x^3(-7)$$

$$3x^5 - 21x^4 + 9x^4 - 63x^3$$

$$3x^5 - 12x^4 - 63x^3$$

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

$$3x^3(x^2 - 7x + 3x - 21)$$

$$3x^3(x^2 - 4x - 21)$$

$$3x^5 - 12x^4 - 63x^3$$

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

$$4x^3(x^2 + 7x - 2x - 14)$$

$$4x^5 + 28x^4 - 8x^4 - 56x^3$$

$$\underline{4x^5 + 20x^4 - 56x^3}$$