The method: Monomial times polynomial

Multiply the outside term by each term inside. Add exponents on x.

$$-x^2(5x^2 + 5x + 4) = -x^2(5x^2) + -x^2(5x) + -x^2(4) = -5x^4 - 5x^3 - 4x^2$$

multiply $-x^2$ by each term

Problems 1 and 2 worked out · Version 0A

$$-5x^2(-4x^2 - 2x - 1) = -5x^2(-4x^2) + -5x^2(-2x) + -5x^2(-1) =$$

$$20x^4 + 10x^3 + 5x^2$$ multiply $-5x^2$ by each term

$$4x^2(3x^2 + 2x - 9) = 4x^2(3x^2) + 4x^2(2x) + 4x^2(-9) = 12x^4 + 8x^3 - 36x^2$$

multiply $4x^2$ by each term

Monomial times polynomial · Version 0A

1) $20x^4 + 10x^3 + 5x^2$ 2) $12x^4 + 8x^3 - 36x^2$
3) $6x^3 - 6x^2 - 24x$ 4) $25x^3 + 5x^2$
5) $9x^4 - 3x^3 + 12x^2$ 6) $3x^3$ 7) $-2x^3 - x$
8) $12x^4 + 28x^2$ 9) $-15x^3 + 9x^2 + 12x$
10) $-8x^3 - 12x$ 11) $8x^4 - 12x^3 - 4x^2$
12) $9x^4 - 9x^3 + 18x^2$ 13) $-2x^4 + 2x^3 + 8x^2$
14) $24x^3 + 16x^2 - 24x$ 15) $2x^3 + 3x^2 - 3x$
16) $-10x^4 - 15x^3 + 30x^2$ 17) $-8x^4 + 4x^3 + 28x^2$
18) $12x^3 + 6x^2 - 18x$ 19) $12x^3 - 9x^2 - 12x$
20) $-12x^4 + 6x^3 + 14x^2$ 21) $-24x^4 - 4x^3$