

Multiplication d'un Binôme par Deux Trinômes (C)

Simplifiez chaque expression.

1. $(-5s^4 + 2s^3)(4s^4 - s^3 - 8s^2)(2s^3 - 6s^2 - s)$

2. $(-2x^3 - 2x^2)(-x^2 + 9x + 9)(-x^2 + 5x - 6)$

3. $(-4c^5 - c^4)(-c^5 + c^4 - 8c^3)(4c^4 - 6c^3 + 8c^2)$

4. $(-3r^2 - 5r)(8r^4 - 8r^3 - 9r^2)(-2r^2 - 4r + 3)$

5. $(-s^4 + 7s^3)(6s^3 + 8s^2 - s)(-5s^4 - 5s^3 - 3s^2)$

6. $(2g^5 - 4g^4)(-g^4 + 7g^3 + 4g^2)(-g^2 + 3g + 8)$

7. $(k^5 + 7k^4)(9k^5 + 5k^4 + 8k^3)(7k^2 - k + 2)$

8. $(-6z + 5)(4z^4 - 6z^3 + 9z^2)(-4z^4 + 3z^3 - 2z^2)$

9. $(9a^5 - 9a^4)(-5a^3 - 3a^2 + 6a)(-9a^2 + a + 2)$

10. $(-7x^2 - 3x)(-9x^2 + 7x - 3)(7x^2 - 8x + 9)$

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Réponses

Simplifiez chaque expression.

$$\begin{aligned} 1. & (-5s^4 + 2s^3)(4s^4 - s^3 - 8s^2)(2s^3 - 6s^2 - s) \\ & = -40s^{11} + 146s^{10} + 18s^9 - 273s^8 + 58s^7 + 16s^6 \end{aligned}$$

$$\begin{aligned} 2. & (-2x^3 - 2x^2)(-x^2 + 9x + 9)(-x^2 + 5x - 6) \\ & = -2x^7 + 26x^6 - 56x^5 - 66x^4 + 126x^3 + 108x^2 \end{aligned}$$

$$\begin{aligned} 3. & (-4c^5 - c^4)(-c^5 + c^4 - 8c^3)(4c^4 - 6c^3 + 8c^2) \\ & = 16c^{14} - 36c^{13} + 174c^{12} - 178c^{11} + 200c^{10} + 64c^9 \end{aligned}$$

$$\begin{aligned} 4. & (-3r^2 - 5r)(8r^4 - 8r^3 - 9r^2)(-2r^2 - 4r + 3) \\ & = 48r^8 + 128r^7 - 142r^6 - 406r^5 + 21r^4 + 135r^3 \end{aligned}$$

$$\begin{aligned} 5. & (-s^4 + 7s^3)(6s^3 + 8s^2 - s)(-5s^4 - 5s^3 - 3s^2) \\ & = 30s^{11} - 140s^{10} - 437s^9 - 352s^8 - 136s^7 + 21s^6 \end{aligned}$$

$$\begin{aligned} 6. & (2g^5 - 4g^4)(-g^4 + 7g^3 + 4g^2)(-g^2 + 3g + 8) \\ & = 2g^{11} - 24g^{10} + 58g^9 + 100g^8 - 208g^7 - 128g^6 \end{aligned}$$

$$\begin{aligned} 7. & (k^5 + 7k^4)(9k^5 + 5k^4 + 8k^3)(7k^2 - k + 2) \\ & = 63k^{12} + 467k^{11} + 251k^{10} + 485k^9 + 30k^8 + 112k^7 \end{aligned}$$

$$\begin{aligned} 8. & (-6z + 5)(4z^4 - 6z^3 + 9z^2)(-4z^4 + 3z^3 - 2z^2) \\ & = 96z^9 - 296z^8 + 552z^7 - 544z^6 + 303z^5 - 90z^4 \end{aligned}$$

$$\begin{aligned} 9. & (9a^5 - 9a^4)(-5a^3 - 3a^2 + 6a)(-9a^2 + a + 2) \\ & = 405a^{10} - 207a^9 - 801a^8 + 603a^7 + 108a^6 - 108a^5 \end{aligned}$$

$$\begin{aligned} 10. & (-7x^2 - 3x)(-9x^2 + 7x - 3)(7x^2 - 8x + 9) \\ & = 441x^6 - 658x^5 + 743x^4 - 135x^3 - 72x^2 + 81x \end{aligned}$$