

Multiplication d'un Binôme par Deux Trinômes (G)

Simplifiez chaque expression.

1. $(-8g^5 + 9g^4)(-g^5 - 5g^4 - 9g^3)(-9g^3 + 6g^2 - 3g)$

2. $(6v + 5)(-9v^2 + 4v - 8)(7v^3 + 2v^2 - 4v)$

3. $(-7a^3 + 3a^2)(-7a^4 + a^3 - 6a^2)(-5a^3 + 9a^2 - 9a)$

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

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

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

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

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

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

10. $(-8t^5 + 8t^4)(-2t^4 - 3t^3 - 7t^2)(-5t^2 - 2t - 6)$

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Réponses

Simplifiez chaque expression.

$$\begin{aligned} 1. & (-8g^5 + 9g^4)(-g^5 - 5g^4 - 9g^3)(-9g^3 + 6g^2 - 3g) \\ & = -72g^{13} - 231g^{12} - 81g^{11} + 798g^{10} - 567g^9 + 243g^8 \end{aligned}$$

$$\begin{aligned} 2. & (6v + 5)(-9v^2 + 4v - 8)(7v^3 + 2v^2 - 4v) \\ & = -378v^6 - 255v^5 - 22v^4 - 252v^3 + 32v^2 + 160v \end{aligned}$$

$$\begin{aligned} 3. & (-7a^3 + 3a^2)(-7a^4 + a^3 - 6a^2)(-5a^3 + 9a^2 - 9a) \\ & = -245a^{10} + 581a^9 - 918a^8 + 747a^7 - 567a^6 + 162a^5 \end{aligned}$$

$$\begin{aligned} 4. & (-6c^5 + c^4)(8c^2 + 4c + 6)(-4c^4 + 6c^3 + 8c^2) \\ & = 192c^{11} - 224c^{10} - 352c^9 - 344c^8 - 220c^7 + 48c^6 \end{aligned}$$

$$\begin{aligned} 5. & (-f^3 - 6f^2)(-f^3 - 6f^2 + 6f)(-9f^3 - 6f^2 + 8f) \\ & = -9f^9 - 114f^8 - 334f^7 + 240f^6 + 456f^5 - 288f^4 \end{aligned}$$

$$\begin{aligned} 6. & (-2q^3 + 3q^2)(-6q^2 - q + 9)(-3q^3 - 6q^2 - 4q) \\ & = -36q^8 - 24q^7 + 111q^6 + 109q^5 - 78q^4 - 108q^3 \end{aligned}$$

$$\begin{aligned} 7. & (6f^3 + 8f^2)(4f^4 + 6f^3 + 3f^2)(-2f^3 + 8f^2 + 2f) \\ & = -48f^{10} + 56f^9 + 460f^8 + 616f^7 + 324f^6 + 48f^5 \end{aligned}$$

$$\begin{aligned} 8. & (-6d^2 + 5d)(8d^2 - 8d - 3)(-7d^3 + 8d^2 - 5d) \\ & = 336d^7 - 1000d^6 + 1098d^5 - 511d^4 - 10d^3 + 75d^2 \end{aligned}$$

$$\begin{aligned} 9. & (6h^5 - 6h^4)(4h^2 - 5h - 6)(-8h^5 + 3h^4 + 5h^3) \\ & = -192h^{12} + 504h^{11} + 6h^{10} - 576h^9 + 78h^8 + 180h^7 \end{aligned}$$

$$\begin{aligned} 10. & (-8t^5 + 8t^4)(-2t^4 - 3t^3 - 7t^2)(-5t^2 - 2t - 6) \\ & = -80t^{11} - 72t^{10} - 272t^9 + 168t^8 - 80t^7 + 336t^6 \end{aligned}$$