

Multiplication d'un Binôme par Deux Trinômes (F)

Simplifiez chaque expression.

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

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

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

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

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

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

7. $(-3y - 1)(5y^3 - y^2 - 2y)(-8y^4 - 2y^3 - 8y^2)$

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

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

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

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Réponses

Simplifiez chaque expression.

$$\begin{aligned} 1. & (6y^5 - 8y^4)(-3y^3 + 9y^2 + 5y)(3y^4 - 9y^3 + 2y^2) \\ & = -54y^{12} + 396y^{11} - 864y^{10} + 414y^9 + 276y^8 - 80y^7 \end{aligned}$$

$$\begin{aligned} 2. & (t^4 + 6t^3)(6t^5 + 8t^4 + 3t^3)(-8t^2 + 4t + 5) \\ & = -48t^{11} - 328t^{10} - 202t^9 + 280t^8 + 327t^7 + 90t^6 \end{aligned}$$

$$\begin{aligned} 3. & (8q^2 + 2q)(q^3 - 5q^2 + 5q)(-4q^4 + 4q^3 + 2q^2) \\ & = -32q^9 + 184q^8 - 256q^7 + 4q^6 + 100q^5 + 20q^4 \end{aligned}$$

$$\begin{aligned} 4. & (-9s + 9)(9s^4 + 3s^3 - 5s^2)(-7s^4 + 8s^3 + s^2) \\ & = 567s^9 - 1026s^8 - 153s^7 + 945s^6 - 288s^5 - 45s^4 \end{aligned}$$

$$\begin{aligned} 5. & (-5k^5 + 3k^4)(2k^4 - k^3 - 9k^2)(-2k^2 + 8k + 9) \\ & = 20k^{11} - 102k^{10} - 86k^9 + 489k^8 + 162k^7 - 243k^6 \end{aligned}$$

$$\begin{aligned} 6. & (-5w + 8)(6w^4 - 7w^3 + 2w^2)(8w^3 + 3w^2 + 2w) \\ & = -240w^8 + 574w^7 - 339w^6 + 96w^5 - 84w^4 + 32w^3 \end{aligned}$$

$$\begin{aligned} 7. & (-3y - 1)(5y^3 - y^2 - 2y)(-8y^4 - 2y^3 - 8y^2) \\ & = 120y^8 + 46y^7 + 68y^6 - 14y^5 - 60y^4 - 16y^3 \end{aligned}$$

$$\begin{aligned} 8. & (-5s^5 + 8s^4)(2s^5 - 8s^4 + s^3)(-4s^2 + 6s - 4) \\ & = 40s^{12} - 284s^{11} + 652s^{10} - 670s^9 + 324s^8 - 32s^7 \end{aligned}$$

$$\begin{aligned} 9. & (-y^4 + 9y^3)(-8y^4 + 2y^3 - 5y^2)(2y^4 + 9y^3 + 4y^2) \\ & = 16y^{12} - 76y^{11} - 588y^{10} - 179y^9 - 313y^8 - 180y^7 \end{aligned}$$

$$\begin{aligned} 10. & (-7w^3 - 7w^2)(-4w^5 + 3w^4 - 4w^3)(6w^2 + 3w + 4) \\ & = 168w^{10} + 126w^9 + 175w^8 + 217w^7 + 112w^6 + 112w^5 \end{aligned}$$