

Multiplying Two Trinomials (I)

Simplify each expression.

1. $(2z^5 + 9z^4 - 2z^3)(-2z^4 - 3z^3 - 7z^2)$

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

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

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

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

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

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

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

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

10. $(4t^4 - 8t^3 + 7t^2)(9t^3 - 7t^2 - t)$

Multiplying Two Trinomials (I) Answers

Simplify each expression.

$$\begin{aligned} 1. & (2z^5 + 9z^4 - 2z^3)(-2z^4 - 3z^3 - 7z^2) \\ & = -4z^9 - 24z^8 - 37z^7 - 57z^6 + 14z^5 \end{aligned}$$

$$\begin{aligned} 2. & (-8x^4 + 4x^3 + 3x^2)(6x^3 - 2x^2 - 4x) \\ & = -48x^7 + 40x^6 + 42x^5 - 22x^4 - 12x^3 \end{aligned}$$

$$\begin{aligned} 3. & (6m^5 + m^4 + 7m^3)(-3m^5 - 8m^4 + 6m^3) \\ & = -18m^{10} - 51m^9 + 7m^8 - 50m^7 + 42m^6 \end{aligned}$$

$$\begin{aligned} 4. & (8k^4 + 6k^3 - 9k^2)(-k^2 - 7k + 8) \\ & = -8k^6 - 62k^5 + 31k^4 + 111k^3 - 72k^2 \end{aligned}$$

$$\begin{aligned} 5. & (8s^2 + 4s - 2)(9s^4 - 8s^3 - 4s^2) \\ & = 72s^6 - 28s^5 - 82s^4 + 8s^2 \end{aligned}$$

$$\begin{aligned} 6. & (-8n^5 - 2n^4 + 2n^3)(3n^2 + 6n - 9) \\ & = -24n^7 - 54n^6 + 66n^5 + 30n^4 - 18n^3 \end{aligned}$$

$$\begin{aligned} 7. & (c^5 - 3c^4 + c^3)(4c^3 - 3c^2 - 6c) \\ & = 4c^8 - 15c^7 + 7c^6 + 15c^5 - 6c^4 \end{aligned}$$

$$\begin{aligned} 8. & (7g^3 + 3g^2 - g)(7g^5 + 3g^4 + 8g^3) \\ & = 49g^8 + 42g^7 + 58g^6 + 21g^5 - 8g^4 \end{aligned}$$

$$\begin{aligned} 9. & (5y^5 - 7y^4 + 5y^3)(-5y^2 + 9y - 5) \\ & = -25y^7 + 80y^6 - 113y^5 + 80y^4 - 25y^3 \end{aligned}$$

$$\begin{aligned} 10. & (4t^4 - 8t^3 + 7t^2)(9t^3 - 7t^2 - t) \\ & = 36t^7 - 100t^6 + 115t^5 - 41t^4 - 7t^3 \end{aligned}$$