

Multiplying Two Trinomials (E)

Simplify each expression.

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

2. $(-8c^3 - 7c^2 - c)(-3c^2 + 2c - 8)$

3. $(3v^3 + 9v^2 + 2v)(-v^3 - 2v^2 - 7v)$

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

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

6. $(-4d^4 - 3d^3 + 7d^2)(4d^2 - 6d - 1)$

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

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

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

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

Multiplying Two Trinomials (E) Answers

Simplify each expression.

$$\begin{aligned} 1. & (-8p^3 - 6p^2 - 8p)(-6p^2 + 2p + 4) \\ & = 48p^5 + 20p^4 + 4p^3 - 40p^2 - 32p \end{aligned}$$

$$\begin{aligned} 2. & (-8c^3 - 7c^2 - c)(-3c^2 + 2c - 8) \\ & = 24c^5 + 5c^4 + 53c^3 + 54c^2 + 8c \end{aligned}$$

$$\begin{aligned} 3. & (3v^3 + 9v^2 + 2v)(-v^3 - 2v^2 - 7v) \\ & = -3v^6 - 15v^5 - 41v^4 - 67v^3 - 14v^2 \end{aligned}$$

$$\begin{aligned} 4. & (-w^5 + 2w^4 - 7w^3)(-6w^5 + 4w^4 + 6w^3) \\ & = 6w^{10} - 16w^9 + 44w^8 - 16w^7 - 42w^6 \end{aligned}$$

$$\begin{aligned} 5. & (4k^2 + 6k - 7)(k^5 + 7k^4 - 3k^3) \\ & = 4k^7 + 34k^6 + 23k^5 - 67k^4 + 21k^3 \end{aligned}$$

$$\begin{aligned} 6. & (-4d^4 - 3d^3 + 7d^2)(4d^2 - 6d - 1) \\ & = -16d^6 + 12d^5 + 50d^4 - 39d^3 - 7d^2 \end{aligned}$$

$$\begin{aligned} 7. & (9a^2 + 6a + 4)(-8a^2 + 7a + 3) \\ & = -72a^4 + 15a^3 + 37a^2 + 46a + 12 \end{aligned}$$

$$\begin{aligned} 8. & (-9d^3 - 8d^2 + 5d)(3d^5 - 4d^4 - d^3) \\ & = -27d^8 + 12d^7 + 56d^6 - 12d^5 - 5d^4 \end{aligned}$$

$$\begin{aligned} 9. & (-3d^5 + 2d^4 - 6d^3)(5d^5 - 9d^4 - 4d^3) \\ & = -15d^{10} + 37d^9 - 36d^8 + 46d^7 + 24d^6 \end{aligned}$$

$$\begin{aligned} 10. & (4t^5 - 6t^4 + 5t^3)(4t^5 + t^4 - 2t^3) \\ & = 16t^{10} - 20t^9 + 6t^8 + 17t^7 - 10t^6 \end{aligned}$$