

Multiplying a Binomial by a Trinomial (C)

Simplify each expression.

1. $(7f^5 - 5f^4)(9f^5 - 6f^4 - 9f^3)$

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

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

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

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

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

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

8. $(5c^2 + 6c)(5c^2 - 7c + 1)$

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

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

Multiplying a Binomial by a Trinomial (C) Answers

Simplify each expression.

$$\begin{aligned} 1. & (7f^5 - 5f^4)(9f^5 - 6f^4 - 9f^3) \\ & = 63f^{10} - 87f^9 - 33f^8 + 45f^7 \end{aligned}$$

$$\begin{aligned} 2. & (3d + 7)(4d^3 - 9d^2 + 8d) \\ & = 12d^4 + d^3 - 39d^2 + 56d \end{aligned}$$

$$\begin{aligned} 3. & (-8a^5 - 4a^4)(-5a^2 - 5a - 9) \\ & = 40a^7 + 60a^6 + 92a^5 + 36a^4 \end{aligned}$$

$$\begin{aligned} 4. & (-2b^5 + 4b^4)(3b^5 - 5b^4 + 8b^3) \\ & = -6b^{10} + 22b^9 - 36b^8 + 32b^7 \end{aligned}$$

$$\begin{aligned} 5. & (-6c^5 - 8c^4)(c^3 - 9c^2 + 5c) \\ & = -6c^8 + 46c^7 + 42c^6 - 40c^5 \end{aligned}$$

$$\begin{aligned} 6. & (-3h^2 - 3h)(-3h^5 - 8h^4 + 8h^3) \\ & = 9h^7 + 33h^6 - 24h^4 \end{aligned}$$

$$\begin{aligned} 7. & (-8s^5 + 5s^4)(-4s^4 + 7s^3 - 5s^2) \\ & = 32s^9 - 76s^8 + 75s^7 - 25s^6 \end{aligned}$$

$$\begin{aligned} 8. & (5c^2 + 6c)(5c^2 - 7c + 1) \\ & = 25c^4 - 5c^3 - 37c^2 + 6c \end{aligned}$$

$$\begin{aligned} 9. & (-8t^5 - 9t^4)(4t^4 - 5t^3 + 4t^2) \\ & = -32t^9 + 4t^8 + 13t^7 - 36t^6 \end{aligned}$$

$$\begin{aligned} 10. & (3g^3 - 7g^2)(-3g^5 + 6g^4 - 8g^3) \\ & = -9g^8 + 39g^7 - 66g^6 + 56g^5 \end{aligned}$$