

Multiplying a Monomial by a Trinomial (F)

Simplify each expression.

1. $z^2(-4z^5 + 6z^4 - 2z^3)$

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

3. $g(3g^3 + 2g^2 - g)$

4. $-2g(2g^2 + 7g - 9)$

5. $-b^2(-9b^2 + b + 8)$

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

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

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

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

10. $5d^2(-2d^5 - 9d^4 - 8d^3)$

Multiplying a Monomial by a Trinomial (F) Answers

Simplify each expression.

$$\begin{aligned} 1. \quad & z^2(-4z^5 + 6z^4 - 2z^3) \\ & = -4z^7 + 6z^6 - 2z^5 \end{aligned}$$

$$\begin{aligned} 2. \quad & 6q^4(-9q^5 + 6q^4 - 4q^3) \\ & = -54q^9 + 36q^8 - 24q^7 \end{aligned}$$

$$\begin{aligned} 3. \quad & g(3g^3 + 2g^2 - g) \\ & = 3g^4 + 2g^3 - g^2 \end{aligned}$$

$$\begin{aligned} 4. \quad & -2g(2g^2 + 7g - 9) \\ & = -4g^3 - 14g^2 + 18g \end{aligned}$$

$$\begin{aligned} 5. \quad & -b^2(-9b^2 + b + 8) \\ & = 9b^4 - b^3 - 8b^2 \end{aligned}$$

$$\begin{aligned} 6. \quad & 8f^2(7f^2 + 7f - 4) \\ & = 56f^4 + 56f^3 - 32f^2 \end{aligned}$$

$$\begin{aligned} 7. \quad & -8k^5(7k^3 + 8k^2 + 2k) \\ & = -56k^8 - 64k^7 - 16k^6 \end{aligned}$$

$$\begin{aligned} 8. \quad & 9t^5(t^2 + 2t - 5) \\ & = 9t^7 + 18t^6 - 45t^5 \end{aligned}$$

$$\begin{aligned} 9. \quad & -8s^4(-9s^4 + 2s^3 + 2s^2) \\ & = 72s^8 - 16s^7 - 16s^6 \end{aligned}$$

$$\begin{aligned} 10. \quad & 5d^2(-2d^5 - 9d^4 - 8d^3) \\ & = -10d^7 - 45d^6 - 40d^5 \end{aligned}$$