

Multiplying a Monomial by a Trinomial (D)

Simplify each expression.

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

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

3. $5x(2x^5 + 8x^4 + 3x^3)$

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

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

6. $5y^2(2y^3 + 9y^2 + 6y)$

7. $7x^3(9x^3 + 8x^2 + x)$

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

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

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

Multiplying a Monomial by a Trinomial (D) Answers

Simplify each expression.

$$\begin{aligned} 1. & 7g(-g^2 + 5g + 6) \\ & = -7g^3 + 35g^2 + 42g \end{aligned}$$

$$\begin{aligned} 2. & -g^2(5g^4 - 9g^3 + 3g^2) \\ & = -5g^6 + 9g^5 - 3g^4 \end{aligned}$$

$$\begin{aligned} 3. & 5x(2x^5 + 8x^4 + 3x^3) \\ & = 10x^6 + 40x^5 + 15x^4 \end{aligned}$$

$$\begin{aligned} 4. & 6p(-4p^2 + 7p - 1) \\ & = -24p^3 + 42p^2 - 6p \end{aligned}$$

$$\begin{aligned} 5. & 9d^3(d^3 - 2d^2 + 7d) \\ & = 9d^6 - 18d^5 + 63d^4 \end{aligned}$$

$$\begin{aligned} 6. & 5y^2(2y^3 + 9y^2 + 6y) \\ & = 10y^5 + 45y^4 + 30y^3 \end{aligned}$$

$$\begin{aligned} 7. & 7x^3(9x^3 + 8x^2 + x) \\ & = 63x^6 + 56x^5 + 7x^4 \end{aligned}$$

$$\begin{aligned} 8. & 5w(6w^4 - 3w^3 + 5w^2) \\ & = 30w^5 - 15w^4 + 25w^3 \end{aligned}$$

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

$$\begin{aligned} 10. & 4h^3(-3h^3 + 6h^2 + 2h) \\ & = -12h^6 + 24h^5 + 8h^4 \end{aligned}$$