

Multiplying a Monomial by Two Binomials (A)

Simplify each expression.

1. $w^4(-5w - 9)(-2w^4 - 2w^3)$

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

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

4. $4w^4(-9w^5 - 9w^4)(8w^2 - 8w)$

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

Multiplying a Monomial by Two Binomials (A) Answers

Simplify each expression.

$$\begin{aligned} 1. \quad & w^4(-5w - 9)(-2w^4 - 2w^3) \\ & = 10w^9 + 28w^8 + 18w^7 \end{aligned}$$

$$\begin{aligned} 2. \quad & 7q^2(-2q + 7)(-3q^5 + 9q^4) \\ & = 42q^8 - 273q^7 + 441q^6 \end{aligned}$$

$$\begin{aligned} 3. \quad & -4c^2(c^4 - 3c^3)(6c^5 + c^4) \\ & = -24c^{11} + 68c^{10} + 12c^9 \end{aligned}$$

$$\begin{aligned} 4. \quad & 4w^4(-9w^5 - 9w^4)(8w^2 - 8w) \\ & = -288w^{11} + 288w^9 \end{aligned}$$

$$\begin{aligned} 5. \quad & g(-7g^3 - 2g^2)(-2g^4 - 6g^3) \\ & = 14g^8 + 46g^7 + 12g^6 \end{aligned}$$