

Multiplying a Monomial by Two Binomials (G)

Simplify each expression.

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

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

3. $7h^4(8h - 9)(9h - 7)$

4. $f^4(-9f^4 - 4f^3)(f^4 + 5f^3)$

5. $8t^4(-2t^2 + 7t)(-9t^4 - 3t^3)$

Multiplying a Monomial by Two Binomials (G) Answers

Simplify each expression.

$$\begin{aligned} 1. & -r^2(-r^5 + 2r^4)(-8r^4 + 4r^3) \\ & = -8r^{11} + 20r^{10} - 8r^9 \end{aligned}$$

$$\begin{aligned} 2. & 8p^4(3p^3 + 6p^2)(-7p^5 - 2p^4) \\ & = -168p^{12} - 384p^{11} - 96p^{10} \end{aligned}$$

$$\begin{aligned} 3. & 7h^4(8h - 9)(9h - 7) \\ & = 504h^6 - 959h^5 + 441h^4 \end{aligned}$$

$$\begin{aligned} 4. & f^4(-9f^4 - 4f^3)(f^4 + 5f^3) \\ & = -9f^{12} - 49f^{11} - 20f^{10} \end{aligned}$$

$$\begin{aligned} 5. & 8t^4(-2t^2 + 7t)(-9t^4 - 3t^3) \\ & = 144t^{10} - 456t^9 - 168t^8 \end{aligned}$$