

Multiplying a Monomial by Two Binomials (F)

Simplify each expression.

1. $9s^2(-2s^2 - 8s)(-8s^2 + 8s)$

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

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

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

5. $6r(3r + 5)(-9r + 6)$

Multiplying a Monomial by Two Binomials (F) Answers

Simplify each expression.

$$\begin{aligned} 1. & 9s^2(-2s^2 - 8s)(-8s^2 + 8s) \\ & = 144s^6 + 432s^5 - 576s^4 \end{aligned}$$

$$\begin{aligned} 2. & -2b^2(5b^4 + 5b^3)(-8b^5 + 8b^4) \\ & = 80b^{11} - 80b^9 \end{aligned}$$

$$\begin{aligned} 3. & 8z^4(-7z^5 + 5z^4)(6z^4 + 4z^3) \\ & = -336z^{13} + 16z^{12} + 160z^{11} \end{aligned}$$

$$\begin{aligned} 4. & 6s^2(3s^3 - 3s^2)(-7s^4 - 5s^3) \\ & = -126s^9 + 36s^8 + 90s^7 \end{aligned}$$

$$\begin{aligned} 5. & 6r(3r + 5)(-9r + 6) \\ & = -162r^3 - 162r^2 + 180r \end{aligned}$$