

Multiplying a Monomial by Two Binomials (B)

Simplify each expression.

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

2. $7z^4(9z^5 + 6z^4)(-z^4 + 6z^3)$

3. $9s^4(4s^3 + 9s^2)(3s^3 + 5s^2)$

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

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

Multiplying a Monomial by Two Binomials (B) Answers

Simplify each expression.

$$\begin{aligned} 1. \quad & 5p(3p^3 - 5p^2)(8p^3 + 2p^2) \\ & = 120p^7 - 170p^6 - 50p^5 \end{aligned}$$

$$\begin{aligned} 2. \quad & 7z^4(9z^5 + 6z^4)(-z^4 + 6z^3) \\ & = -63z^{13} + 336z^{12} + 252z^{11} \end{aligned}$$

$$\begin{aligned} 3. \quad & 9s^4(4s^3 + 9s^2)(3s^3 + 5s^2) \\ & = 108s^{10} + 423s^9 + 405s^8 \end{aligned}$$

$$\begin{aligned} 4. \quad & -3r^5(5r^5 + r^4)(6r^3 + 8r^2) \\ & = -90r^{13} - 138r^{12} - 24r^{11} \end{aligned}$$

$$\begin{aligned} 5. \quad & 4n^2(-9n^5 - 6n^4)(9n + 5) \\ & = -324n^8 - 396n^7 - 120n^6 \end{aligned}$$