

Multiplying a Monomial by a Binomial (E)

Simplify each expression.

1. $-5s^5(-3s^4 + 6s^3)$

2. $3f^3(6f^5 + 3f^4)$

3. $7m^4(7m^4 - 7m^3)$

4. $-6w(5w + 9)$

5. $5a^4(-9a^3 - 5a^2)$

6. $4f^3(2f^3 - 8f^2)$

7. $6f^4(2f - 6)$

8. $-7y^3(y^3 - 8y^2)$

9. $-7a(6a^2 - 8a)$

10. $4q^5(-8q^4 - 9q^3)$

Multiplying a Monomial by a Binomial (E) Answers

Simplify each expression.

$$\begin{aligned} 1. & -5s^5(-3s^4 + 6s^3) \\ & = 15s^9 - 30s^8 \end{aligned}$$

$$\begin{aligned} 2. & 3f^3(6f^5 + 3f^4) \\ & = 18f^8 + 9f^7 \end{aligned}$$

$$\begin{aligned} 3. & 7m^4(7m^4 - 7m^3) \\ & = 49m^8 - 49m^7 \end{aligned}$$

$$\begin{aligned} 4. & -6w(5w + 9) \\ & = -30w^2 - 54w \end{aligned}$$

$$\begin{aligned} 5. & 5a^4(-9a^3 - 5a^2) \\ & = -45a^7 - 25a^6 \end{aligned}$$

$$\begin{aligned} 6. & 4f^3(2f^3 - 8f^2) \\ & = 8f^6 - 32f^5 \end{aligned}$$

$$\begin{aligned} 7. & 6f^4(2f - 6) \\ & = 12f^5 - 36f^4 \end{aligned}$$

$$\begin{aligned} 8. & -7y^3(y^3 - 8y^2) \\ & = -7y^6 + 56y^5 \end{aligned}$$

$$\begin{aligned} 9. & -7a(6a^2 - 8a) \\ & = -42a^3 + 56a^2 \end{aligned}$$

$$\begin{aligned} 10. & 4q^5(-8q^4 - 9q^3) \\ & = -32q^9 - 36q^8 \end{aligned}$$