

Multiplying a Monomial by a Binomial (H)

Simplify each expression.

1. $4m^5(-9m^4 - 3m^3)$

2. $2a(-5a - 2)$

3. $7t^5(7t^2 - t)$

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

5. $-5f(-9f + 2)$

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

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

8. $-9w^5(-4w^3 - 4w^2)$

9. $3q(7q + 2)$

10. $5x^2(-9x^3 - x^2)$

Multiplying a Monomial by a Binomial (H) Answers

Simplify each expression.

$$\begin{aligned} 1. \quad & 4m^5(-9m^4 - 3m^3) \\ & = -36m^9 - 12m^8 \end{aligned}$$

$$\begin{aligned} 2. \quad & 2a(-5a - 2) \\ & = -10a^2 - 4a \end{aligned}$$

$$\begin{aligned} 3. \quad & 7t^5(7t^2 - t) \\ & = 49t^7 - 7t^6 \end{aligned}$$

$$\begin{aligned} 4. \quad & 8x^3(4x^2 - 6x) \\ & = 32x^5 - 48x^4 \end{aligned}$$

$$\begin{aligned} 5. \quad & -5f(-9f + 2) \\ & = 45f^2 - 10f \end{aligned}$$

$$\begin{aligned} 6. \quad & 5c^3(-3c^5 + 8c^4) \\ & = -15c^8 + 40c^7 \end{aligned}$$

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

$$\begin{aligned} 8. \quad & -9w^5(-4w^3 - 4w^2) \\ & = 36w^8 + 36w^7 \end{aligned}$$

$$\begin{aligned} 9. \quad & 3q(7q + 2) \\ & = 21q^2 + 6q \end{aligned}$$

$$\begin{aligned} 10. \quad & 5x^2(-9x^3 - x^2) \\ & = -45x^5 - 5x^4 \end{aligned}$$