

Multiplying a Monomial by a Trinomial (I)

Simplify each expression.

1. $4y^4(-8y^2 - 8y - 5)$

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

3. $-9g(-9g^3 - 8g^2 + 6g)$

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

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

6. $-9m(5m^4 - m^3 - m^2)$

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

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

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

10. $5h^2(h^5 - 3h^4 + 7h^3)$

Multiplying a Monomial by a Trinomial (I) Answers

Simplify each expression.

$$\begin{aligned} 1. & 4y^4(-8y^2 - 8y - 5) \\ &= -32y^6 - 32y^5 - 20y^4 \end{aligned}$$

$$\begin{aligned} 2. & -9f^4(-6f^5 + 4f^4 - 6f^3) \\ &= 54f^9 - 36f^8 + 54f^7 \end{aligned}$$

$$\begin{aligned} 3. & -9g(-9g^3 - 8g^2 + 6g) \\ &= 81g^4 + 72g^3 - 54g^2 \end{aligned}$$

$$\begin{aligned} 4. & -8p^2(-5p^3 - 5p^2 + 4p) \\ &= 40p^5 + 40p^4 - 32p^3 \end{aligned}$$

$$\begin{aligned} 5. & 9q(-5q^3 + 8q^2 - 7q) \\ &= -45q^4 + 72q^3 - 63q^2 \end{aligned}$$

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

$$\begin{aligned} 7. & -9s^4(-6s^3 - s^2 + 9s) \\ &= 54s^7 + 9s^6 - 81s^5 \end{aligned}$$

$$\begin{aligned} 8. & 4h^5(-3h^4 + 5h^3 - 9h^2) \\ &= -12h^9 + 20h^8 - 36h^7 \end{aligned}$$

$$\begin{aligned} 9. & 4s^5(s^4 - 5s^3 - 8s^2) \\ &= 4s^9 - 20s^8 - 32s^7 \end{aligned}$$

$$\begin{aligned} 10. & 5h^2(h^5 - 3h^4 + 7h^3) \\ &= 5h^7 - 15h^6 + 35h^5 \end{aligned}$$