

## Multiplying a Monomial by a Trinomial (H)

Simplify each expression.

1.  $2f^4(8f^3 - 8f^2 - 7f)$

2.  $-4m^4(-8m^3 - 9m^2 - 8m)$

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

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

5.  $-9x^2(x^2 - 7x + 5)$

6.  $4h^2(-8h^2 - 7h + 9)$

7.  $-8w(6w^4 + 9w^3 + 3w^2)$

8.  $-8t(4t^2 + 2t + 8)$

9.  $8c^3(8c^4 - 9c^3 - 3c^2)$

10.  $m(9m^5 - 7m^4 - 8m^3)$

## Multiplying a Monomial by a Trinomial (H) Answers

Simplify each expression.

$$\begin{aligned} 1. & 2f^4(8f^3 - 8f^2 - 7f) \\ & = 16f^7 - 16f^6 - 14f^5 \end{aligned}$$

$$\begin{aligned} 2. & -4m^4(-8m^3 - 9m^2 - 8m) \\ & = 32m^7 + 36m^6 + 32m^5 \end{aligned}$$

$$\begin{aligned} 3. & -2r^5(-4r^2 + 6r + 6) \\ & = 8r^7 - 12r^6 - 12r^5 \end{aligned}$$

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

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

$$\begin{aligned} 6. & 4h^2(-8h^2 - 7h + 9) \\ & = -32h^4 - 28h^3 + 36h^2 \end{aligned}$$

$$\begin{aligned} 7. & -8w(6w^4 + 9w^3 + 3w^2) \\ & = -48w^5 - 72w^4 - 24w^3 \end{aligned}$$

$$\begin{aligned} 8. & -8t(4t^2 + 2t + 8) \\ & = -32t^3 - 16t^2 - 64t \end{aligned}$$

$$\begin{aligned} 9. & 8c^3(8c^4 - 9c^3 - 3c^2) \\ & = 64c^7 - 72c^6 - 24c^5 \end{aligned}$$

$$\begin{aligned} 10. & m(9m^5 - 7m^4 - 8m^3) \\ & = 9m^6 - 7m^5 - 8m^4 \end{aligned}$$