

Multiplying a Monomial by a Binomial (I)

Simplify each expression.

1. $6w(6w + 2)$

2. $8m^5(4m + 1)$

3. $c^5(-4c - 1)$

4. $6y^2(-3y^3 + y^2)$

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

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

7. $r^2(6r - 5)$

8. $y^4(7y^3 - 6y^2)$

9. $6f^2(-7f - 4)$

10. $-7w(w^4 + 9w^3)$

Multiplying a Monomial by a Binomial (I) Answers

Simplify each expression.

$$\begin{aligned} 1. & 6w(6w + 2) \\ & = 36w^2 + 12w \end{aligned}$$

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

$$\begin{aligned} 3. & c^5(-4c - 1) \\ & = -4c^6 - c^5 \end{aligned}$$

$$\begin{aligned} 4. & 6y^2(-3y^3 + y^2) \\ & = -18y^5 + 6y^4 \end{aligned}$$

$$\begin{aligned} 5. & -5s^4(-2s^5 + 9s^4) \\ & = 10s^9 - 45s^8 \end{aligned}$$

$$\begin{aligned} 6. & -7r^3(3r^4 + 9r^3) \\ & = -21r^7 - 63r^6 \end{aligned}$$

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

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

$$\begin{aligned} 9. & 6f^2(-7f - 4) \\ & = -42f^3 - 24f^2 \end{aligned}$$

$$\begin{aligned} 10. & -7w(w^4 + 9w^3) \\ & = -7w^5 - 63w^4 \end{aligned}$$