

Multiplying a Monomial by a Trinomial (J)

Simplify each expression.

1. $-5v^5(9v^3 - 6v^2 - 8v)$

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

3. $9b(-9b^4 - 3b^3 - 7b^2)$

4. $d^2(7d^4 + 5d^3 + 6d^2)$

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

6. $9h(3h^5 + 4h^4 - 7h^3)$

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

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

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

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

Multiplying a Monomial by a Trinomial (J) Answers

Simplify each expression.

$$\begin{aligned} 1. & -5v^5(9v^3 - 6v^2 - 8v) \\ & = -45v^8 + 30v^7 + 40v^6 \end{aligned}$$

$$\begin{aligned} 2. & 7q^4(-8q^3 + 8q^2 + 6q) \\ & = -56q^7 + 56q^6 + 42q^5 \end{aligned}$$

$$\begin{aligned} 3. & 9b(-9b^4 - 3b^3 - 7b^2) \\ & = -81b^5 - 27b^4 - 63b^3 \end{aligned}$$

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

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

$$\begin{aligned} 6. & 9h(3h^5 + 4h^4 - 7h^3) \\ & = 27h^6 + 36h^5 - 63h^4 \end{aligned}$$

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

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

$$\begin{aligned} 9. & -6w^3(-7w^4 + 9w^3 - w^2) \\ & = 42w^7 - 54w^6 + 6w^5 \end{aligned}$$

$$\begin{aligned} 10. & 2b^4(-2b^5 + 4b^4 + b^3) \\ & = -4b^9 + 8b^8 + 2b^7 \end{aligned}$$