

Simplifying Expressions (D)

Simplify each expression.

1. $-4a^2 \cdot a^2 \cdot \left(-\frac{9a^4}{-9a^2}\right)$

6. $6y^2 \cdot \frac{54y^2}{-9} \cdot (-3y^2)$

2. $-8 \cdot (-x) \cdot \frac{9x^2}{3x^2}$

7. $-\frac{60x^6}{10x^2 \cdot (-x^2)} \cdot x^2$

3. $7z^2 \cdot 7 \cdot z \cdot 9z^2$

8. $-2b^2 \cdot \left(-\frac{54b^3}{9b^2 \cdot (-2b)}\right)$

4. $-4x^2 \cdot x \cdot (-10x^2) \cdot x^2$

9. $-1 \cdot y^2 \cdot y^2 \cdot (-9)$

5. $8 \cdot \frac{48v^2}{6} \cdot 9v^2$

10. $-5z \cdot \frac{z^2}{z^2} \cdot z^2$

Simplifying Expressions (D) Answers

Simplify each expression.

$$\begin{aligned} 1. & -4a^2 \cdot a^2 \cdot \left(-\frac{9a^4}{-9a^2}\right) \\ & = -4a^6 \end{aligned}$$

$$\begin{aligned} 6. & 6y^2 \cdot \frac{54y^2}{-9} \cdot (-3y^2) \\ & = 108y^6 \end{aligned}$$

$$\begin{aligned} 2. & -8 \cdot (-x) \cdot \frac{9x^2}{3x^2} \\ & = 24x \end{aligned}$$

$$\begin{aligned} 7. & -\frac{60x^6}{10x^2 \cdot (-x^2)} \cdot x^2 \\ & = 6x^4 \end{aligned}$$

$$\begin{aligned} 3. & 7z^2 \cdot 7 \cdot z \cdot 9z^2 \\ & = 441z^5 \end{aligned}$$

$$\begin{aligned} 8. & -2b^2 \cdot \left(-\frac{54b^3}{9b^2 \cdot (-2b)}\right) \\ & = -6b^2 \end{aligned}$$

$$\begin{aligned} 4. & -4x^2 \cdot x \cdot (-10x^2) \cdot x^2 \\ & = 40x^7 \end{aligned}$$

$$\begin{aligned} 9. & -1 \cdot y^2 \cdot y^2 \cdot (-9) \\ & = 9y^4 \end{aligned}$$

$$\begin{aligned} 5. & 8 \cdot \frac{48v^2}{6} \cdot 9v^2 \\ & = 576v^4 \end{aligned}$$

$$\begin{aligned} 10. & -5z \cdot \frac{z^2}{z^2} \cdot z^2 \\ & = -5z^3 \end{aligned}$$