

Simplifying Expressions (H)

Simplify each expression.

1. $-9a \cdot 2 \cdot 3 \cdot a^2$

6. $-x^2 \cdot \frac{30x^3}{5x \cdot x}$

2. $z \cdot (-6z^2) \cdot 7z \cdot z$

7. $-5 \cdot (-y^2) \cdot 8 \cdot y^2$

3. $6y \cdot y^2 \cdot 3y^2 \cdot 3y^2$

8. $-1 \cdot c \cdot (-9) \cdot (-2c)$

4. $7 \cdot x \cdot x^2 \cdot 7x$

9. $-4x \cdot (-5x^2) \cdot 8x \cdot (-4x)$

5. $-z \cdot (-1) \cdot 9 \cdot (-9z)$

10. $-a^2 \cdot \left(-\frac{2a^5}{-2a^2 \cdot a} \right)$

Simplifying Expressions (H) Answers

Simplify each expression.

$$\begin{aligned} 1. & -9a \cdot 2 \cdot 3 \cdot a^2 \\ & = -54a^3 \end{aligned}$$

$$\begin{aligned} 6. & -x^2 \cdot \frac{30x^3}{5x \cdot x} \\ & = -6x^3 \end{aligned}$$

$$\begin{aligned} 2. & z \cdot (-6z^2) \cdot 7z \cdot z \\ & = -42z^5 \end{aligned}$$

$$\begin{aligned} 7. & -5 \cdot (-y^2) \cdot 8 \cdot y^2 \\ & = 40y^4 \end{aligned}$$

$$\begin{aligned} 3. & 6y \cdot y^2 \cdot 3y^2 \cdot 3y^2 \\ & = 54y^7 \end{aligned}$$

$$\begin{aligned} 8. & -1 \cdot c \cdot (-9) \cdot (-2c) \\ & = -18c^2 \end{aligned}$$

$$\begin{aligned} 4. & 7 \cdot x \cdot x^2 \cdot 7x \\ & = 49x^4 \end{aligned}$$

$$\begin{aligned} 9. & -4x \cdot (-5x^2) \cdot 8x \cdot (-4x) \\ & = -640x^5 \end{aligned}$$

$$\begin{aligned} 5. & -z \cdot (-1) \cdot 9 \cdot (-9z) \\ & = -81z^2 \end{aligned}$$

$$\begin{aligned} 10. & -a^2 \cdot \left(-\frac{2a^5}{-2a^2 \cdot a} \right) \\ & = -a^4 \end{aligned}$$