

# Simplifying Expressions

Simplify each expression.

1.  $4cy \cdot y \cdot 10c \cdot 5y^2$

6.  $a \cdot \frac{ax}{ax} \cdot 3$

2.  $bv \cdot \left(-\frac{60v^3}{10v^2}\right) \cdot bv$

7.  $a \cdot \left(-\frac{144a^3}{3a \cdot (-6)}\right)$

3.  $-8 \cdot 2 \cdot (-z^2) \cdot (-8)$

8.  $\frac{b}{-1} \cdot b^2 \cdot 4b$

4.  $\frac{9x^3z}{9xz \cdot x} \cdot x$

9.  $\frac{140z^3}{2z \cdot 7z^2} \cdot 7x$

5.  $10y \cdot vy \cdot \frac{y}{y}$

10.  $-3a^2 \cdot a^2 \cdot a \cdot (-a^2)$

## Simplifying Expressions Answers

Simplify each expression.

$$\begin{aligned} 1. & 4cy \cdot y \cdot 10c \cdot 5y^2 \\ & = 200c^2y^4 \end{aligned}$$

$$\begin{aligned} 6. & a \cdot \frac{ax}{ax} \cdot 3 \\ & = 3a \end{aligned}$$

$$\begin{aligned} 2. & bv \cdot \left(-\frac{60v^3}{10v^2}\right) \cdot bv \\ & = -6b^2v^3 \end{aligned}$$

$$\begin{aligned} 7. & a \cdot \left(-\frac{144a^3}{3a \cdot (-6)}\right) \\ & = 8a^3 \end{aligned}$$

$$\begin{aligned} 3. & -8 \cdot 2 \cdot (-z^2) \cdot (-8) \\ & = -128z^2 \end{aligned}$$

$$\begin{aligned} 8. & \frac{b}{-1} \cdot b^2 \cdot 4b \\ & = -4b^4 \end{aligned}$$

$$\begin{aligned} 4. & \frac{9x^3z}{9xz \cdot x} \cdot x \\ & = x^2 \end{aligned}$$

$$\begin{aligned} 9. & \frac{140z^3}{2z \cdot 7z^2} \cdot 7x \\ & = 70x \end{aligned}$$

$$\begin{aligned} 5. & 10y \cdot vy \cdot \frac{y}{y} \\ & = 10vy^2 \end{aligned}$$

$$\begin{aligned} 10. & -3a^2 \cdot a^2 \cdot a \cdot (-a^2) \\ & = 3a^7 \end{aligned}$$