

Zero and Negative Exponents

Evaluate the expression.

$$\textcircled{1} 4^{-2} = \frac{1}{4^2} = \textcircled{\frac{1}{16}}$$

$$\begin{aligned}\textcircled{5} \frac{3^{10}}{3^{14}} &= 3^{10-14} \\ &= 3^{-4} \\ &= \frac{1}{3^4} \\ &= \textcircled{\frac{1}{81}}\end{aligned}$$

Simplify. Write the expression using only positive exponents.

$$\textcircled{3} 3^0 = \textcircled{1} \quad \textcircled{4} \frac{8x^4}{x^{-3}} = 8 \cdot x^{4-(-3)} = \textcircled{8x^7}$$

$$\textcircled{5} 8y^{-8} \cdot 6y^8 = 8 \cdot 6 \cdot y^{-8+8} = 48y^0 = 48 \cdot 1 = \textcircled{48}$$