

8.2 Key Concepts 2 Exponent Rule When Dividing Worked Example

Example: Simplify $\frac{c^5}{c^2}$.

Solution: When dividing powers with the same base, subtract the exponent in the denominator from the exponent in the numerator, and keep the base the same.

$$\begin{aligned}\frac{c^5}{c^2} &= c^{5-2} \\ &= c^3\end{aligned}$$

Practice:

1. Simplify $\frac{8^7}{8^2}$ by writing as a single power.

2. Simplify $\frac{u^{11}}{u^5}$.

Answers: 1. 8^5 2. u^6