

Dividing Exponents (F)

Simplify each expression.

1. $\frac{7^{-7}}{7^{-7}}$

2. $\frac{(-4)^8}{(-4)^2}$

3. $\frac{(-9)^{-7}}{(-9)^{-9}}$

4. $\frac{9^6}{9^{-7}}$

5. $\frac{(-7)^0}{(-7)^{-4}}$

6. $\frac{(-4)^3}{(-4)^{-3}}$

7. $\frac{2^{-8}}{2^{-8}}$

8. $\frac{(-2)^4}{(-2)^{-4}}$

9. $\frac{(-7)^1}{(-7)^0}$

10. $\frac{(-2)^6}{(-2)^5}$

Dividing Exponents (F) Answers

Simplify each expression.

$$\begin{aligned} 1. \quad & \frac{7^{-7}}{7^{-7}} \\ & = 7^0 = 1 \end{aligned}$$

$$\begin{aligned} 2. \quad & \frac{(-4)^8}{(-4)^2} \\ & = (-4)^6 \end{aligned}$$

$$\begin{aligned} 3. \quad & \frac{(-9)^{-7}}{(-9)^{-9}} \\ & = (-9)^2 \end{aligned}$$

$$\begin{aligned} 4. \quad & \frac{9^6}{9^{-7}} \\ & = 9^{13} \end{aligned}$$

$$\begin{aligned} 5. \quad & \frac{(-7)^0}{(-7)^{-4}} \\ & = (-7)^4 \end{aligned}$$

$$\begin{aligned} 6. \quad & \frac{(-4)^3}{(-4)^{-3}} \\ & = (-4)^6 \end{aligned}$$

$$\begin{aligned} 7. \quad & \frac{2^{-8}}{2^{-8}} \\ & = 2^0 = 1 \end{aligned}$$

$$\begin{aligned} 8. \quad & \frac{(-2)^4}{(-2)^{-4}} \\ & = (-2)^8 \end{aligned}$$

$$\begin{aligned} 9. \quad & \frac{(-7)^1}{(-7)^0} \\ & = (-7) \end{aligned}$$

$$\begin{aligned} 10. \quad & \frac{(-2)^6}{(-2)^5} \\ & = (-2) \end{aligned}$$