

Dividing Exponents (H)

Simplify each expression.

1. $\frac{(-9)^{-8}}{(-9)^{-9}}$

2. $\frac{(-8)^{-3}}{(-8)^{-8}}$

3. $\frac{2^2}{2^{-2}}$

4. $\frac{9^5}{9^{-4}}$

5. $\frac{7^{-6}}{7^{-6}}$

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

7. $\frac{9^8}{9^4}$

8. $\frac{(-5)^5}{(-5)^{-3}}$

9. $\frac{(-8)^{-6}}{(-8)^{-6}}$

10. $\frac{6^5}{6^{-1}}$

Dividing Exponents (H) Answers

Simplify each expression.

$$\begin{aligned} 1. \quad & \frac{(-9)^{-8}}{(-9)^{-9}} \\ & = (-9) \end{aligned}$$

$$\begin{aligned} 2. \quad & \frac{(-8)^{-3}}{(-8)^{-8}} \\ & = (-8)^5 \end{aligned}$$

$$\begin{aligned} 3. \quad & \frac{2^2}{2^{-2}} \\ & = 2^4 \end{aligned}$$

$$\begin{aligned} 4. \quad & \frac{9^5}{9^{-4}} \\ & = 9^9 \end{aligned}$$

$$\begin{aligned} 5. \quad & \frac{7^{-6}}{7^{-6}} \\ & = 7^0 = 1 \end{aligned}$$

$$\begin{aligned} 6. \quad & \frac{7^{-4}}{7^{-7}} \\ & = 7^3 \end{aligned}$$

$$\begin{aligned} 7. \quad & \frac{9^8}{9^4} \\ & = 9^4 \end{aligned}$$

$$\begin{aligned} 8. \quad & \frac{(-5)^5}{(-5)^{-3}} \\ & = (-5)^8 \end{aligned}$$

$$\begin{aligned} 9. \quad & \frac{(-8)^{-6}}{(-8)^{-6}} \\ & = (-8)^0 = 1 \end{aligned}$$

$$\begin{aligned} 10. \quad & \frac{6^5}{6^{-1}} \\ & = 6^6 \end{aligned}$$