

## Dividing Exponents (F)

Simplify each expression.

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

2.  $\frac{(-5)^{-3}}{(-5)^0}$

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

4.  $\frac{(-4)^3}{(-4)^8}$

5.  $\frac{4^{-5}}{4^6}$

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

7.  $\frac{(-3)^1}{(-3)^6}$

8.  $\frac{9^3}{9^6}$

9.  $\frac{6^2}{6^4}$

10.  $\frac{(-9)^6}{(-9)^7}$

## Dividing Exponents (F) Answers

Simplify each expression.

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

$$\begin{aligned} 2. \quad & \frac{(-5)^{-3}}{(-5)^0} \\ & = (-5)^{-3} = \frac{1}{(-5)^3} \end{aligned}$$

$$\begin{aligned} 3. \quad & \frac{(-9)^8}{(-9)^9} \\ & = (-9)^{-1} = \frac{1}{-9} \end{aligned}$$

$$\begin{aligned} 4. \quad & \frac{(-4)^3}{(-4)^8} \\ & = (-4)^{-5} = \frac{1}{(-4)^5} \end{aligned}$$

$$\begin{aligned} 5. \quad & \frac{4^{-5}}{4^6} \\ & = 4^{-11} = \frac{1}{4^{11}} \end{aligned}$$

$$\begin{aligned} 6. \quad & \frac{(-6)^3}{(-6)^3} \\ & = (-6)^0 = 1 \end{aligned}$$

$$\begin{aligned} 7. \quad & \frac{(-3)^1}{(-3)^6} \\ & = (-3)^{-5} = \frac{1}{(-3)^5} \end{aligned}$$

$$\begin{aligned} 8. \quad & \frac{9^3}{9^6} \\ & = 9^{-3} = \frac{1}{9^3} \end{aligned}$$

$$\begin{aligned} 9. \quad & \frac{6^2}{6^4} \\ & = 6^{-2} = \frac{1}{6^2} \end{aligned}$$

$$\begin{aligned} 10. \quad & \frac{(-9)^6}{(-9)^7} \\ & = (-9)^{-1} = \frac{1}{-9} \end{aligned}$$