

Dividing Exponents (H)

Simplify each expression.

1. $\frac{(-7)^8}{(-7)^9}$

2. $\frac{9^1}{9^1}$

3. $\frac{8^4}{8^6}$

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

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

6. $\frac{5^8}{5^9}$

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

8. $\frac{2^{-6}}{2^7}$

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

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

Dividing Exponents (H) Answers

Simplify each expression.

$$1. \frac{(-7)^8}{(-7)^9}$$

$$= (-7)^{-1} = \frac{1}{-7}$$

$$2. \frac{9^1}{9^1}$$

$$= 9^0 = 1$$

$$3. \frac{8^4}{8^6}$$

$$= 8^{-2} = \frac{1}{8^2}$$

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

$$= 9^{-1} = \frac{1}{9}$$

$$5. \frac{(-4)^{-3}}{(-4)^4}$$

$$= (-4)^{-7} = \frac{1}{(-4)^7}$$

$$6. \frac{5^8}{5^9}$$

$$= 5^{-1} = \frac{1}{5}$$

$$7. \frac{(-3)^3}{(-3)^8}$$

$$= (-3)^{-5} = \frac{1}{(-3)^5}$$

$$8. \frac{2^{-6}}{2^7}$$

$$= 2^{-13} = \frac{1}{2^{13}}$$

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

$$= (-9)^0 = 1$$

$$10. \frac{(-8)^6}{(-8)^6}$$

$$= (-8)^0 = 1$$