

## Dividing Exponents (E)

Simplify each expression.

1.  $\frac{9^3}{9^3}$

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

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

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

5.  $\frac{2^{-5}}{2^6}$

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

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

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

9.  $\frac{(-9)^{-4}}{(-9)^1}$

10.  $\frac{3^1}{3^7}$

## Dividing Exponents (E) Answers

Simplify each expression.

$$1. \frac{9^3}{9^3}$$
$$= 9^0 = 1$$

$$2. \frac{(-3)^{-8}}{(-3)^3}$$
$$= (-3)^{-11} = \frac{1}{(-3)^{11}}$$

$$3. \frac{(-5)^7}{(-5)^7}$$
$$= (-5)^0 = 1$$

$$4. \frac{(-9)^{-9}}{(-9)^{-5}}$$
$$= (-9)^{-4} = \frac{1}{(-9)^4}$$

$$5. \frac{2^{-5}}{2^6}$$
$$= 2^{-11} = \frac{1}{2^{11}}$$

$$6. \frac{(-2)^2}{(-2)^3}$$
$$= (-2)^{-1} = \frac{1}{-2}$$

$$7. \frac{9^{-9}}{9^{-5}}$$
$$= 9^{-4} = \frac{1}{9^4}$$

$$8. \frac{(-6)^8}{(-6)^9}$$
$$= (-6)^{-1} = \frac{1}{-6}$$

$$9. \frac{(-9)^{-4}}{(-9)^1}$$
$$= (-9)^{-5} = \frac{1}{(-9)^5}$$

$$10. \frac{3^1}{3^7}$$
$$= 3^{-6} = \frac{1}{3^6}$$