

# Dividing Exponents (I)

Simplify each expression.

1.  $\frac{8^7}{8^7}$

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

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

4.  $\frac{3^2}{3^8}$

5.  $\frac{3^{-6}}{3^5}$

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

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

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

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

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

# Dividing Exponents (I) Answers

Simplify each expression.

$$1. \frac{8^7}{8^7}$$
$$= 8^0 = 1$$

$$2. \frac{(-3)^{-2}}{(-3)^0}$$
$$= (-3)^{-2} = \frac{1}{(-3)^2}$$

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

$$4. \frac{3^2}{3^8}$$
$$= 3^{-6} = \frac{1}{3^6}$$

$$5. \frac{3^{-6}}{3^5}$$
$$= 3^{-11} = \frac{1}{3^{11}}$$

$$6. \frac{8^6}{8^6}$$
$$= 8^0 = 1$$

$$7. \frac{(-6)^{-3}}{(-6)^{-3}}$$
$$= (-6)^0 = 1$$

$$8. \frac{(-6)^7}{(-6)^9}$$
$$= (-6)^{-2} = \frac{1}{(-6)^2}$$

$$9. \frac{4^4}{4^7}$$
$$= 4^{-3} = \frac{1}{4^3}$$

$$10. \frac{(-8)^3}{(-8)^8}$$
$$= (-8)^{-5} = \frac{1}{(-8)^5}$$