

Exponent Rules (H)

Simplify each expression.

1. $(-5)^1 \cdot (-9)^1$

2. $(8^3)^4$

3. $4^{-6} \cdot 4^{-4}$

4. $((-5)^0)^1$

5. $6^3 \cdot (-8)^3$

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

7. $\frac{(-7)^4}{(-7)^4}$

8. $4^{-8} \cdot 4^4$

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

10. $\frac{5^3}{5^{-1}}$

Exponent Rules (H) Answers

Simplify each expression.

1. $(-5)^1 \cdot (-9)^1$

$$= 45$$

2. $(8^3)^4$

$$= 8^{12}$$

3. $4^{-6} \cdot 4^{-4}$

$$= 4^{-10} = \frac{1}{4^{10}}$$

4. $((-5)^0)^1$

$$= (-5)^0 = 1$$

5. $6^3 \cdot (-8)^3$

$$= (-48)^3$$

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

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

7. $\frac{(-7)^4}{(-7)^4}$

$$= (-7)^0 = 1$$

8. $4^{-8} \cdot 4^4$

$$= 4^{-4} = \frac{1}{4^4}$$

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

$$= 8^2$$

10. $\frac{5^3}{5^{-1}}$

$$= 5^4$$