

Exponent Rules (D)

Simplify each expression.

1. $2^3 \cdot 2^6$

2. $(8^8)^1$

3. $(8^4)^5$

4. $\frac{4^5}{4^2}$

5. $4^5 \cdot 6^5$

6. $9^8 \cdot 8^8$

7. $\frac{2^7}{2^5}$

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

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

10. $3^6 \cdot 3^2$

Exponent Rules (D) Answers

Simplify each expression.

1. $2^3 \cdot 2^6$

$$= 2^9$$

2. $(8^8)^1$

$$= 8^8$$

3. $(8^4)^5$

$$= 8^{20}$$

4. $\frac{4^5}{4^2}$

$$= 4^3$$

5. $4^5 \cdot 6^5$

$$= 24^5$$

6. $9^8 \cdot 8^8$

$$= 72^8$$

7. $\frac{2^7}{2^5}$

$$= 2^2$$

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

$$= 2^{-7} = \frac{1}{2^7}$$

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

$$= 6^0 = 1$$

10. $3^6 \cdot 3^2$

$$= 3^8$$