

Exponent Rules (A)

Simplify each expression.

1. $(7^4)^8$

2. $3^7 \cdot 3^7$

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

4. $2^6 \cdot 2^5$

5. $\frac{5^3}{5^8}$

6. $5^7 \cdot 8^7$

7. $(2^4)^5$

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

9. $6^8 \cdot 6^0$

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

Exponent Rules (A) Answers

Simplify each expression.

1. $(7^4)^8$

$$= 7^{32}$$

2. $3^7 \cdot 3^7$

$$= 3^{14}$$

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

$$= 4^0 = 1$$

4. $2^6 \cdot 2^5$

$$= 2^{11}$$

5. $\frac{5^3}{5^8}$

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

6. $5^7 \cdot 8^7$

$$= 40^7$$

7. $(2^4)^5$

$$= 2^{20}$$

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

$$= 7^6$$

9. $6^8 \cdot 6^0$

$$= 6^8$$

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

$$= 3^0 = 1$$