

Powerful Patterns

Complete the following: $2^3 \times 2^2 = (2 \times 2 \times 2) \times (2 \times 2) = 2^?$

$$3^2 \times 3^5 = \underline{\hspace{2cm}} = 3^?$$

$$4^1 \times 4^3 = \underline{\hspace{2cm}} = 4^?$$

Explain the rule for multiplying powers.

Complete the following $2^6 \div 2^2 = (2 \times 2 \times 2 \times 2 \times 2 \times 2) / (2 \times 2) = 2^?$

$$3^4 \div 3^2 = \underline{\hspace{2cm}} / \underline{\hspace{2cm}} = 3^?$$

$$4^3 \div 4^3 = \underline{\hspace{2cm}} / \underline{\hspace{2cm}} = 4^?$$

Explain the rule for dividing powers.
