

16. Exponents and Powers

$$A^n = A \times A \times A \times \dots \times A$$

A is the **base**, n is the **exponent**, and the result is called the **power**

a)

$$3 \times 3 \times 3 = 3^3 = 27$$

$$5 \times 5 \times 5 \times 5 = 5^4 = 625$$

b)

$$4 \times 4 = \boxed{}$$

$$2 \times 2 \times 2 \times 2 \times 2 = \boxed{}$$

c)

$$3^2 = \boxed{} \quad 10^3 = \boxed{}$$

$$2^6 = \boxed{} \quad 1^5 = \boxed{}$$

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d)

$$3^2 \square 2^3$$

$$4^2 \square 2^4$$

$$5^2 \square 2^5$$

e)

The side length of a square is 6. What is its area? (Express in exponential form and calculate)

Area =

f)

The side length of a cube is 4. What is its volume? (Express in exponential form and calculate)

Volume =