

# Multiplying Indices

When **multiplying indices** with the **same base**, **add the powers**.

$$a^m \times a^n = a^{m+n}$$

 **Example**

Simplify  $a^3 \times a^4$

$$a^3 \times a^4 = a^{3+4} = a^7$$

 **Example**

Simplify  $a^{-2} \times a^6$

$$a^{-2} \times a^6 = a^{-2+6} = a^4$$