

# Brackets with Indices

**Brackets with indices** are where we have a term inside a bracket with an index (or power) outside of the bracket.

When there is a power outside the bracket, **multiply the powers**.

$$(a^m)^n = a^{m \times n} = a^{mn}$$

 Example

$$(a^4)^2 = a^{4 \times 2} = a^8$$

 Example

$$(a^{-2})^3 = a^{-2 \times 3} = a^{-6}$$