

# Fractional Indices

When using **fractional indices**:

- The **denominator** is the **root** of the number or letter
- Then raise the answer **to the power of** the **numerator**

$$a^{\frac{m}{n}} = \sqrt[n]{a^m}$$

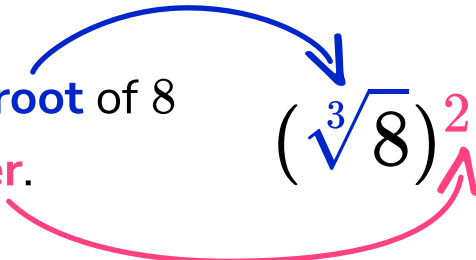
 Example

Evaluate  $8^{\frac{2}{3}}$

The denominator **3** means we are finding the **cube root** of 8

The numerator **2** means we then **square our answer**.

$$8^{\frac{2}{3}} = (\sqrt[3]{8})^2 = 2^2 = 4$$


$$(\sqrt[3]{8})^2$$