Indices Rules

$$x^a \times x^b = x^{a+b}$$

$$\frac{x^a}{x^b} = x^{a-b}$$

$$(x^a)^b = x^{ab}$$

$$(xy)^a = x^a y^a$$

$$x^0 = 1$$

$$x^{-a} = \frac{1}{x^a}$$

$$x^{\frac{1}{a}} = \sqrt[a]{x}$$

$$x^{\frac{a}{b}} = (\sqrt[b]{x})^a$$

$$x^{-\frac{a}{b}} = \frac{1}{(\sqrt[b]{x})^a}$$

$$\left(\frac{x}{y}\right)^a = \frac{x^a}{y^a}$$