

RULES OF EXPONENTS AND RADICALS

RULES OF EXPONENTS:

$$(a^b)(a^c) = a^{(b+c)}$$

$$(a^b)^c = a^{(bc)}$$

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

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

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

RULES OF RADICALS:

$$\sqrt{a \times b} = \sqrt{a} \sqrt{b}$$

$$\sqrt{a+b} \neq \sqrt{a} + \sqrt{b}$$

$$\sqrt{\frac{a}{b}} = \frac{\sqrt{a}}{\sqrt{b}}$$

$$\frac{\sqrt{a}}{\sqrt{b}} \times \frac{\sqrt{b}}{\sqrt{b}} = \frac{\sqrt{ab}}{b}$$

$$b\sqrt{a} + c\sqrt{a} = (b+c)\sqrt{a}$$