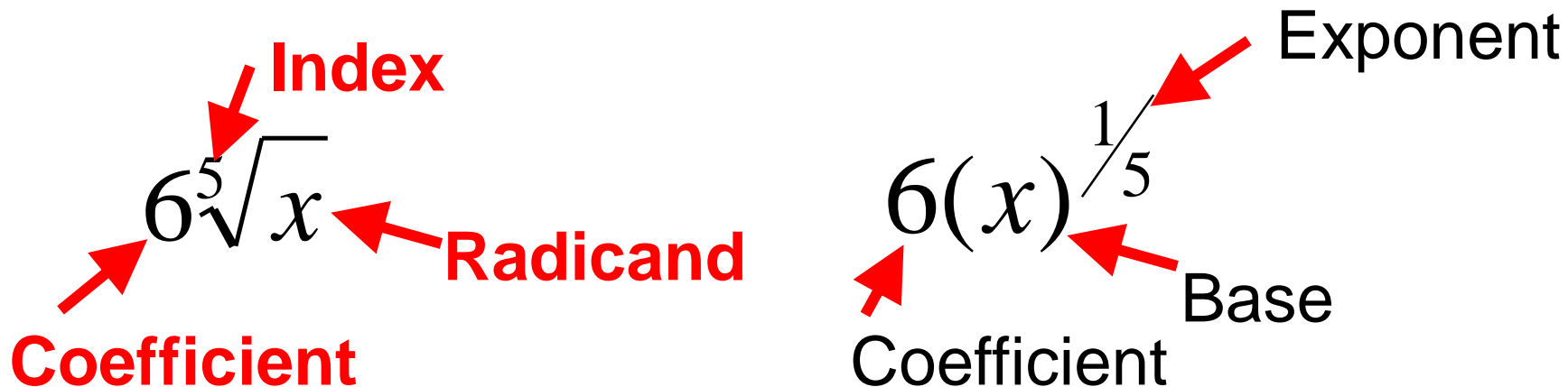


Math-2A Lesson 3-6 (simplifying radicands that have negative numbers)



Coefficient \longrightarrow Coefficient

Radicand \longrightarrow Base

Index \longrightarrow Denominator of the Exponent

The index number is the denominator of the exponent.

Simplifying Square Roots of negative numbers.

$$\sqrt{-2} \rightarrow \sqrt{-1} * \sqrt{2} \rightarrow i\sqrt{2}$$

$$\sqrt{-8} \rightarrow \sqrt{-1} * \sqrt{2 * 2 * 2} \rightarrow 2i\sqrt{2}$$

$$\sqrt{-18xy} \rightarrow \sqrt{-1} * \sqrt{3 * 3 * 2 * x * y} \rightarrow 3i\sqrt{2xy}$$

$$\sqrt{-24x^3y^5} \rightarrow \sqrt{-1} * \sqrt{3 * 2 * 2 * 2 * x^2 * x * y^4 * y} \rightarrow 2xy^2i\sqrt{6xy}$$

Put the “*i*” last in the coefficient.