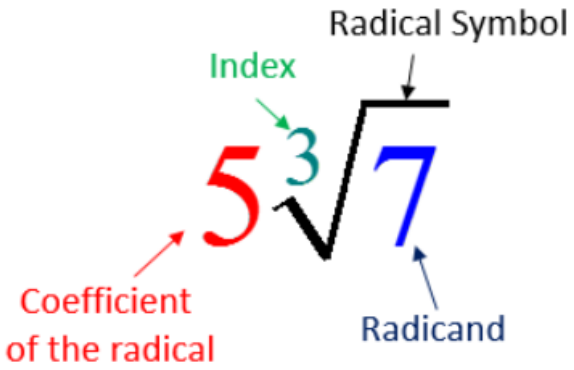
Radicals

A radical expression is any mathematical expression containing a radical symbol ($\sqrt{\ }$).

Parts of a Radical



Note: If the index is not indicated, it is understood to be 2.

Important Terms

Entire Radical

- a radical with a coefficient of 1 or -1

  Examples $\sqrt{30},\ \sqrt[4]{100},\ \sqrt{98x^2y^5},\ -\sqrt{5}$

Mixed Radical

- the product of a monomial and a radical (ie. a radical with a coefficient)

  Examples $9\sqrt{2},\ -5\sqrt{3},\ -4x\sqrt[3]{7x^2}$

Like Radicals

- Radicals that have the same index and the same radicand.

  Examples $7\sqrt{3}$ and $-10\sqrt{3}$ are like radicals

  $\frac{1}{4}\sqrt[3]{5x^2}$ and $-\sqrt[3]{5x^2}$ are like radicals

  Note: Only like radicals can be added and subtracted.