

## Radicals: Adding and Subtracting

WARNING → One can only add or subtract **LIKE** radicals.

To Have Like Radicals, the Following Must be True:

1. The radicals must have the same index.
2. The radicals must have the same radicand.

$$\sqrt{7} + 4\sqrt{7} = 5\sqrt{7}$$

$$6\sqrt[3]{x^2} - 2\sqrt[3]{x^2} = 4\sqrt[3]{x^2}$$

One cannot add radicals with different indices.  $\sqrt[3]{7} + 4\sqrt{7}$

One cannot add radicals with different radicands.  $\sqrt{11} + 4\sqrt{7}$

TRY:

$$\sqrt{5} - 3\sqrt{5}$$

$$3\sqrt{6a} + 7\sqrt{6a}$$

$$\sqrt[3]{5y} - 4\sqrt[3]{5y} + \sqrt[3]{x} + \sqrt[3]{x}$$