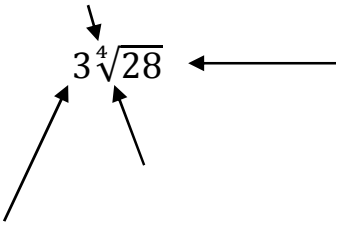
Section 4.3 - Simplifying Radicals



Perfect Squares

1^2 = _____

2^2 = _____

3^2 = _____

4^2 = _____

5^2 = _____

6^2 = _____

7^2 = _____

8^2 = _____

9^2 = _____

10^2 = ____

11^2 = ____

12^2 = ____

Perfect Cubes

1^3 = _____

2^3 = _____

3^3 = _____

4^3 = _____

5^3 = _____

6^3 = _____

Entire Radical: When all the _____ are under the root sign. Except the index. e.g.

Mixed Radical: When there is a _____ in front of the root sign, as well as numbers under the root sign. e.g.

All _____ radicals can be written as _____ radicals and vice versa.

Entire to Mixed

1. _____

   _____

2. _____

Ex. #1: Express the following entire radicals as mixed radicals.

(a) $\sqrt{12}$ (b) $\sqrt{45}$ (c) $\sqrt{72}$

(d) $\sqrt{80}$ (e) $\sqrt[3]{24}$ f) $\sqrt[3]{144}$

Mixed to Entire

1. _____

2. _____

Ex. #2: Express the following mixed radicals as entire radicals.

(a) $5\sqrt{3}$ (b) $2\sqrt{7}$ (c) $3\sqrt[3]{4}$

(d) $3\sqrt{3}$ (e) $2\sqrt[3]{5}$ (f) $2\sqrt[4]{3}$