Chapter #4 Roots & Powers

November-04-13
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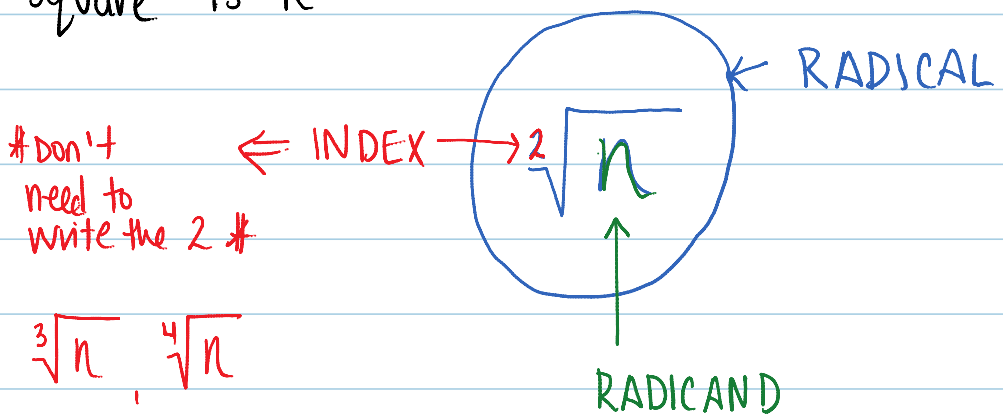
3.2 Perfect Squares, Cubes and their Roots

The square root of a number, $\sqrt{n}$, is a positive # whose square is n



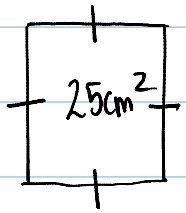
don't need to write the 2

$\sqrt[3]{n}$, $\sqrt[4]{n}$

we do write the 3 for the cube root

Any whole # that is the area of a square with a whole # side length is a perfect square.

Ex. #1

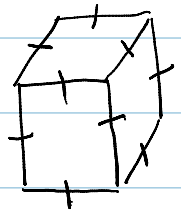


$\sqrt{25} = 5cm \quad [\Rightarrow 5^2 = 5 \times 5 = 25]$

The cube root of a number $\sqrt[3]{n}$ is a # whose cube is n

Ex. #2

Ex. #2



Volume = 216 cm^3

Find the edge length.

$\sqrt[3]{216} = 6$ [$\Rightarrow 6^3 = 6 \times 6 \times 6 = 216$]

Yes! it is a perfect cube

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