

Lesson 8-2 → Simplifying Perfect Cubes

$$5 \times 5 = 25$$

$$\sqrt{25} = 5$$

but wait!

$$(-5) \times (-5) = 25$$

so really....

$$\sqrt{25} = 5 \text{ and } -5$$

But in 8th grade, people

usually just say $\sqrt{25} = 5$

which is standard until high school

Now on to cube roots....

$$2 \times 2 \times 2 = 2^3 = 8$$

$$\sqrt[3]{8} = 2$$

$$(-2) \times (-2) \times (-2) = (-2)^3 = -8$$

$$\sqrt[3]{-8} = -2$$

so.... $\sqrt{25} = 5$ or -5

$$\sqrt[3]{8} = 2 \text{ only}$$

$$\sqrt[3]{-8} = -2 \text{ only}$$

$\sqrt{-25}$ does not exist
until Algebra II