4.1 Estimating Roots

MATH LAB

LESSON FOCUS Explore decimal representations of different roots of numbers.

Make Connections

Since $3^2 = 9$, 3 is a square root of 9.

We write: $3 = \sqrt{9}$

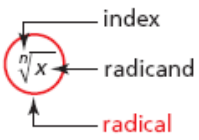
Since $3^3 = 27$, 3 is the cube root of 27.

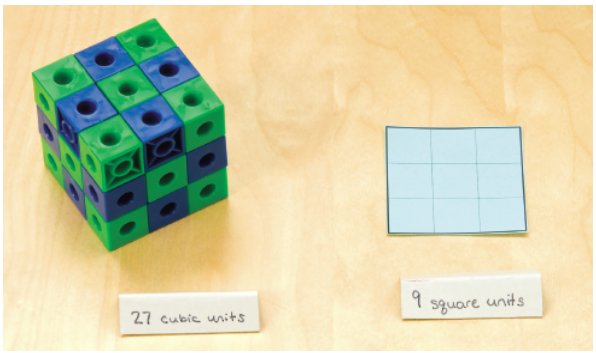
We write: $3 = \sqrt[3]{27}$

Since $3^4 = 81$, 3 is a fourth root of 81.

We write: $3 = \sqrt[4]{81}$

How would you write 5 as a square root? A cube root? A fourth root?





$\sqrt{25} = 5$ $\sqrt[3]{125} = 5$

What are the perfect squares we should recognize?

1, 4, 9, 16, 25, 36, 49

1x1 2x2 3x3 4x4

64, 81, 100, 121, 144,

What are the perfect cubes we should recognize?

8, 27, 64, 125

2x2x2 3x3x3