Oct 6th

Perfect Cube Roots

$1^3 = 1$	$\sqrt[3]{1} = 1$
$2^3 = 8$	$\sqrt[3]{8} = 2$
$3^3 = 27$	$\sqrt[3]{27} = 3$
$4^3 = 64$	$\sqrt[3]{64} = 4$
$5^3 = 125$	$\sqrt[3]{125} = 5$
$6^3 = 216$	$\sqrt[3]{216} = 6$
$7^3 = 343$	$\sqrt[3]{343} = 7$
$8^3 = 512$	$\sqrt[3]{512} = 8$
$9^3 = 729$	$\sqrt[3]{729} = 9$
$10^3 = 1000$	$\sqrt[3]{1000} = 10$

- cube root + exponent of 3 are inverse operations

is 729 a perfect cube?

$\sqrt[3]{729}$ mean exactly the same thing

$\sqrt[3]{-1000} = -10$

$\sqrt{-25}$ = no solution

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Algebraically find the fraction that represents the decimal $5.\overline{23}$

$$100x = 5.\overline{23}(100)$$

$$100x = 523.\overline{23}$$
$$-x \quad - \quad 5.\overline{23}$$

$$\frac{99x}{99} = \frac{518}{99}$$

$$\boxed{x = 5\frac{23}{99}}$$