

Approximating Irrational Numbers

MAIN IDEAS

NOTES

Square
Roots

\sqrt{a} ← square root symbol
(radical)

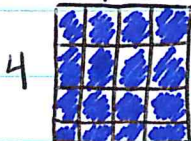
finding the square root of
a number is the opposite
of squaring a number.

ex: $\sqrt{100} = 10$ b/c $10^2 = 100$

Square
Roots of
Perfect
Squares

Whole numbers, rational
numbers

ex: $A = 16$



4

$$\sqrt{16} = 4$$

4

Square
Roots of
Non-perfect
Squares

Irrational numbers

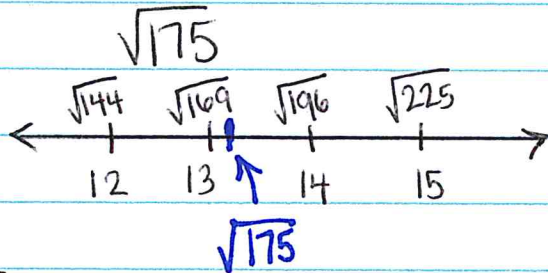
can be approximated by
determining what two
perfect squares it's between

ex: $\sqrt{2} = 1.4142\dots$

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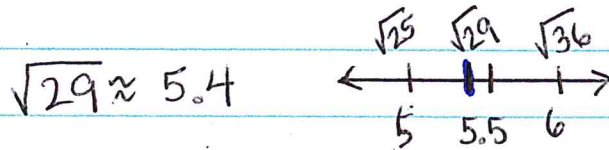
NOTES



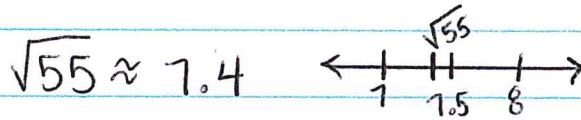
$\sqrt{175}$ is between 13 and 14

$\sqrt{18}$ is between 4 and 5

$\sqrt{72}$ is between 8 and 9



$$\sqrt{29} \approx 5.4$$



$$\sqrt{55} \approx 7.4$$

$$\sqrt{200} \approx 14.1$$