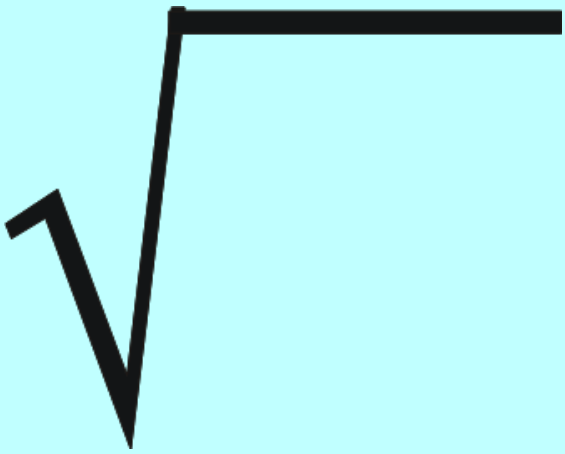
Lesson 32



square roots

Find this symbol on your calculator

Lesson # 32 ~ Square Root

Square Root

$\sqrt{x}$ is an operation that finds the number that, when multiplied by itself gives x.

Ex $3^2 = 3 \times 3 = 9$ $\sqrt{9} = 3$

The square root of 16, written as $\sqrt{16}$, is 4 since 4 x 4 = $4^2 = 16$

$\sqrt{25}$ $= 5$

$\sqrt{25} + \sqrt{16}$ $5 + 4 = 9$

Negatives

$5^2 = 5 \times 5 = 25$ $\sqrt{25} = \sqrt{5 \times 5} = 5$

$-5^2 = -1(5^2) = -25$

$(-5)^2 = -5 \times -5 = 25$

$\sqrt{}$: represents the positive square root $\sqrt{100} = 10$

$-\sqrt{}$: represents the negative square root $-\sqrt{36} = -6$

$-\sqrt{36} = -1(\sqrt{36}) = -6$

The square root can also be a decimal.

$\sqrt{17.64} = 4.2$ $4.2^2 = 17.64$

Square root of zero is..... $\sqrt{0} = 0$

$0^2 = 0$

What is the square root of positive 121? 11

What is the square root of positive 16? 4

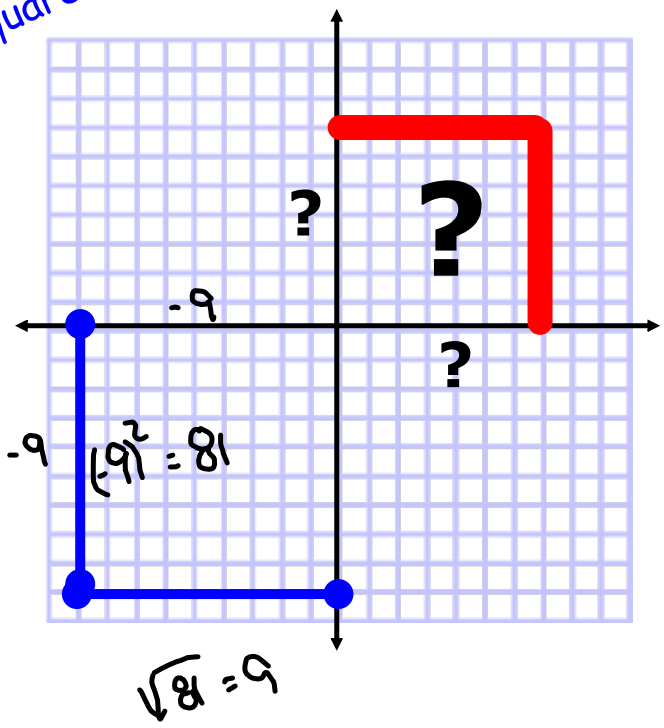
What is the square root of positive 1? 1

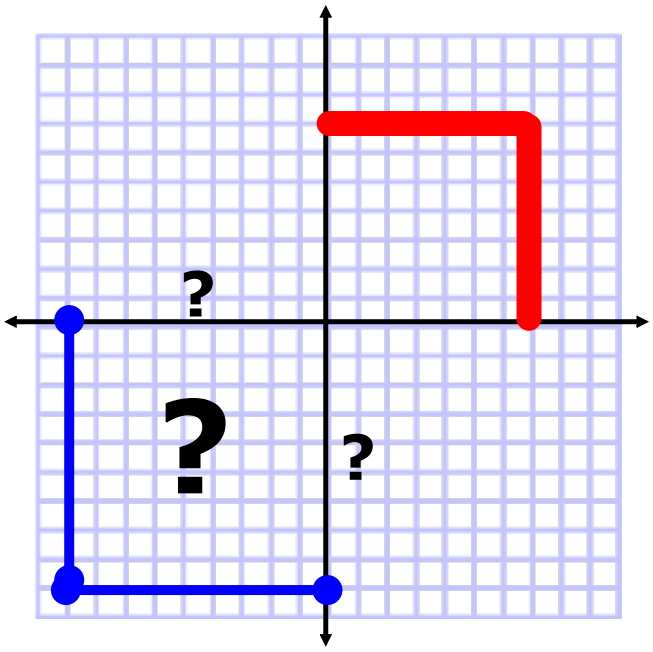
What is the square root of positive 196? 14

What is the square root of positive 49? 7

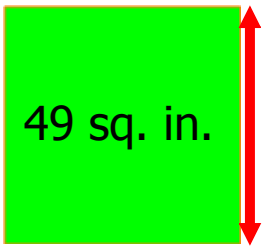
What is the square root of positive 400? 20

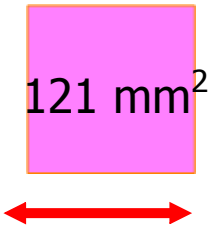
Why the word square?

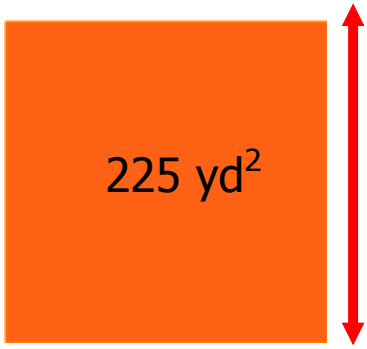




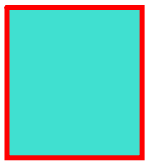
Why is this a positive area?



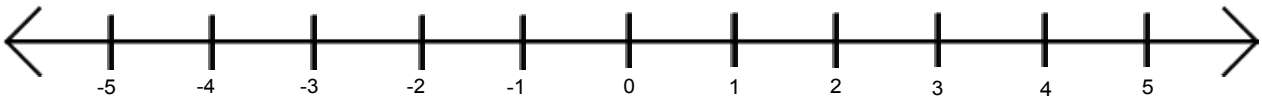




If our classroom were square it would be 25 feet wide and 25 feet long, so how many squares are needed to tile our floor?



$\sqrt{0}$ $\sqrt{9}$ $-\sqrt{16}$ $\sqrt{4}$ $\sqrt{1}$



- click and drag

Square roots with negative answers.....why??????

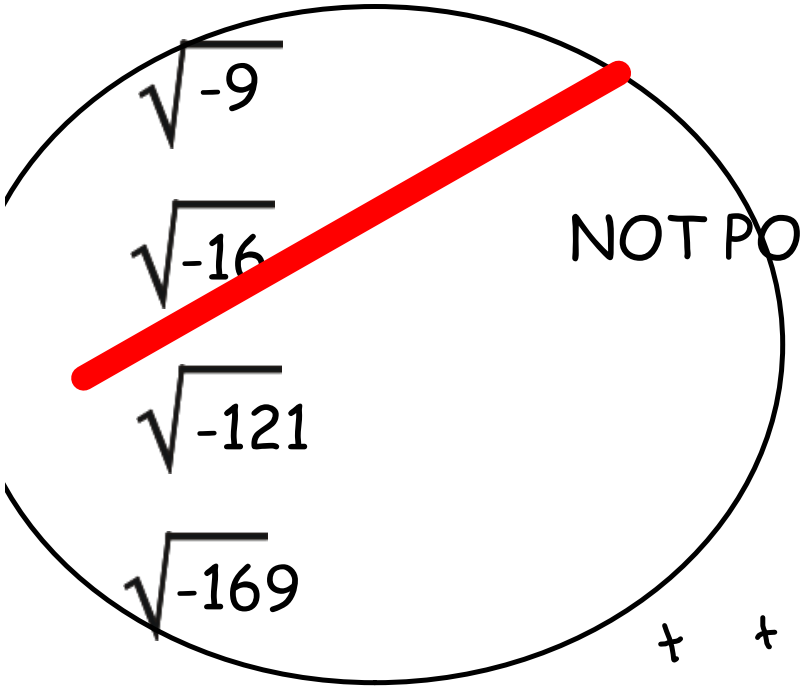
$-\sqrt{1}=$ $-\sqrt{169}=$ $-\sqrt{49}$

$-\sqrt{100}=$ $-\sqrt{121}$ $-\sqrt{9}$

$-\sqrt{36}=$ $-\sqrt{81}$ $-\sqrt{400}$

$-\sqrt{256}=$ $-\sqrt{625}$ $-\sqrt{225}$

Fill in the chart with the correct answers.



Last comment

NOT POSSIBLE!

Not real

$+ \cdot + = +$
$- \cdot - = +$

WHY?

$-6 \cdot -6 = 36$