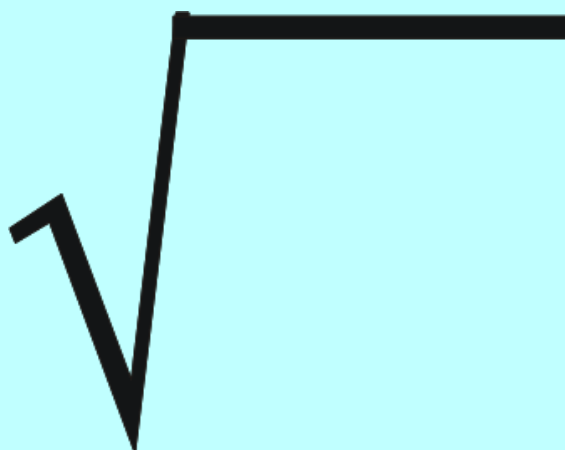


Lesson 32



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.

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

Radical $\sqrt{25} = 5$ Square root
 Radicand $\sqrt{25} + \sqrt{16} = 5 + 4 = 9$

Negatives

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

$\sqrt{\quad}$: represents the positive square root $\sqrt{100} = 10$
 $-\sqrt{\quad}$: represents the negative square root $-\sqrt{36} = -6$

The square root can also be a decimal.

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

Square root of zero is.....

$\sqrt{0} = 0$
 why? $0^2 = (0)(0) = 0$

What is the square root of positive 121?

What is the square root of positive 16?

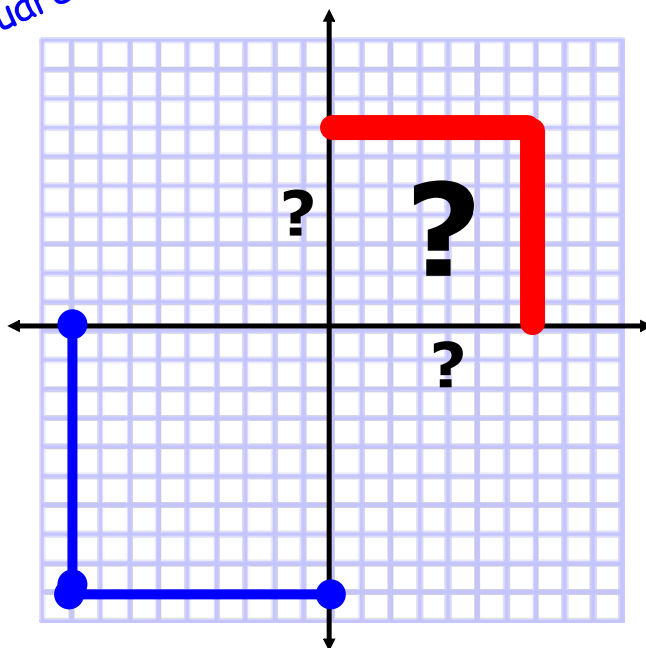
What is the square root of positive 1?

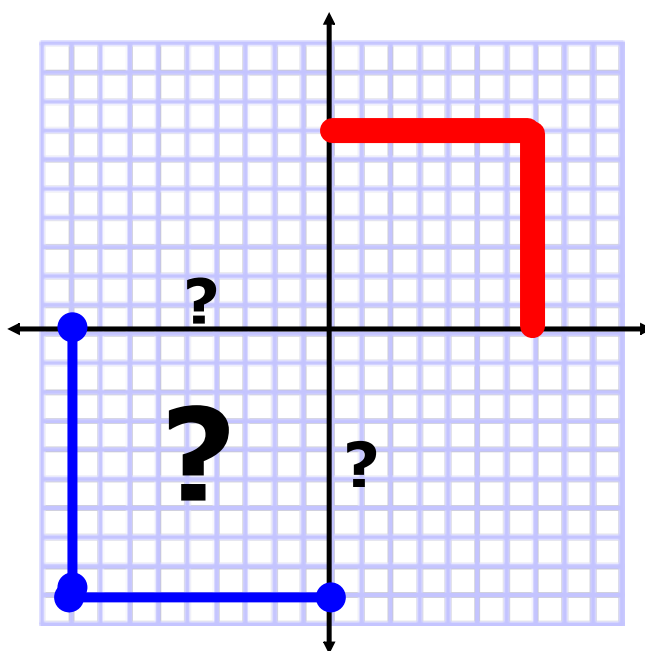
What is the square root of positive 196?

What is the square root of positive 49?

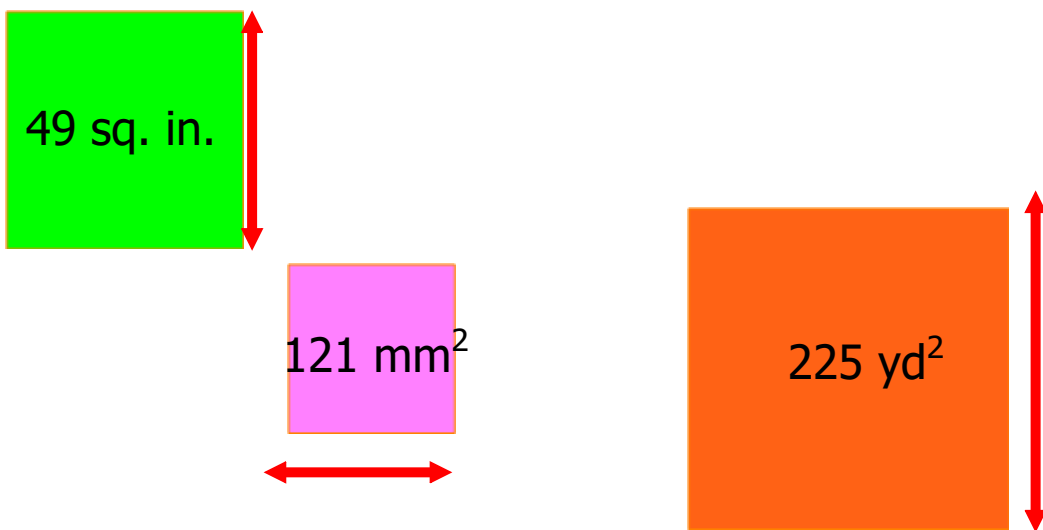
What is the square root of positive 400?

Why the word square?

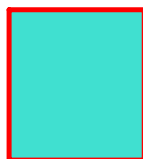




Why is this a positive area?



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?



$$\sqrt{0} \quad \sqrt{9} \quad -\sqrt{16}$$

$$\sqrt{4} \quad \sqrt{1}$$



- click and drag

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

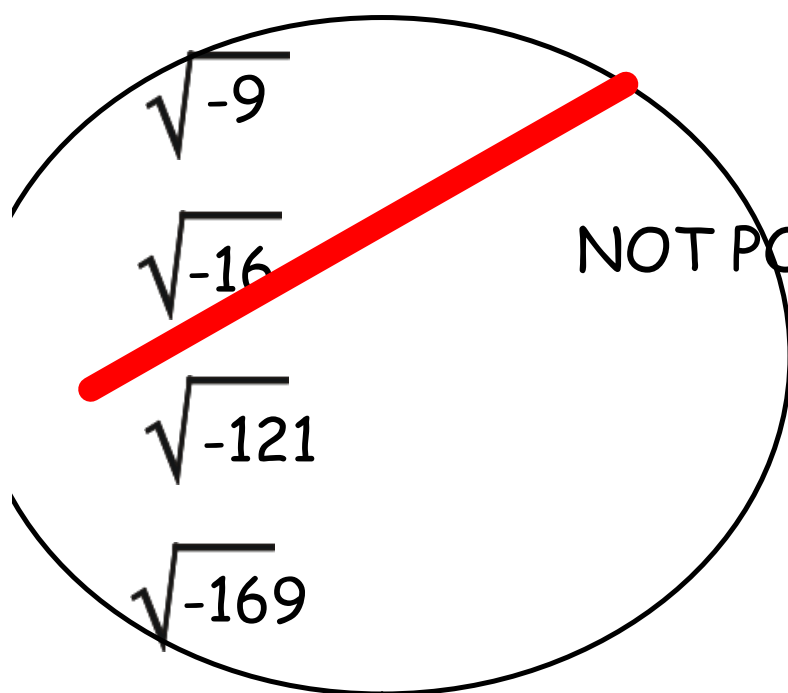
$$-\sqrt{1} = \quad -\sqrt{169} = \quad -\sqrt{49}$$

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

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

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

Fill in the chart with the correct answers.



Last comment

NOT POSSIBLE!

Not real

WHY?