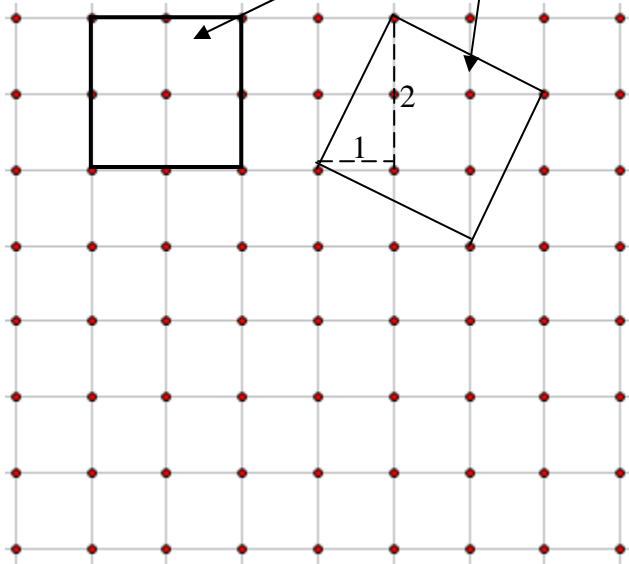


Now you know the Pythagorean Theorem.

On this 8 by 8 grid, make squares by connecting the dots. Make squares that have the following areas: 1, 2, 4, 5, 9, 10, 16, 25, 36, 49 and 64 square units. Some of your squares will not have horizontal or vertical sides.



The length of a side of a square is called its “root.”

So, a square that is made up of 4 little squares has a side that is 2 units long. The square’s “root” is 2.

We have a symbol for the square root. It’s called the “radical” symbol.

This is the radical symbol: $\sqrt{\quad}$

If you put a number inside the radical you read it like this: “The square root of ...”

How would you read this? $\sqrt{4}$

“ _____ ”

You’ve seen this symbol before (yesterday!).

An effective way to find the square root of a number is to guess. Then take the average of the number you tried (divisor) and the number you got (quotient). It’s ok to stop after you get the same 4 digits past the decimal (10,000ths place). Four digits of accuracy is pretty good. Find the square root of each number without using the radical key.

2) 14 _____

3) 7 _____

4) 12 _____

5) 95 _____

6) 30 _____

7) 74 _____

8) 130 _____

9) 300 _____

10) 1000 _____