Meno is divided into 3 parts:

Part I 70 a – 81c is a conversation between Meno and Socrates as to whether or not virtue can be taught which cannot be done unless it is known what virtue is.

Part II 81c – 86c Socrates tries to convince Meno that Meno’s servant can recollect – i.e. bring to mind something that he already knows – the relation between a given square and one twice its area.

Part III 86c – 100c (where the discussion concludes) where Socrates claims that “the truth about reality is always in our soul”

What follows discusses only Part II in which Socrates asks the boy to construct a square twice the area of a given square. Socrates presupposes that the boy already knows what a square looks like (“what it is” in everyday language), knows (accepts) that the four sides of the square are equal and that two are parallel to the base, two to the vertical.

The boy is presumed to “see” (“accept”) that within the original square there are four equal squares. When asked to describe a square twice the area of the given square he suggests that the solution would be to double the length of the sides of the given square. Socrates brings him to discover that, were that done, the resultant square would be four times the area of the given square rather than twice its area. He eventually gets the boy to discover that that diagonal of the given square is the length of the sides of the square twice the area of the given square.

Socrates knows the answer to the question; the boy does not. Socrates brings him to discover the answer by asking questions which the boy is able to answer. Evidently the questions to be of any value in this context must lead to answers that will bring the questioner to the solution. Socrates asks the questions but it is worth remarking that the questions become questions for the boy only when he takes them to be questions that he considers worth asking and is willing to try to answer .

There remains an unnoticed feature of the discussion between the boy and Socrates. The boy is led to discover how to construct a square twice the area of the given square. Obviously it is possible to construct a square twice the area of the constructed square and another twice its area and so *ad infinitum.* Evidently, there are squares squares three times the area, half the area, a fifth the area of the original and so on …

There is an infinity of squares. What makes each one a square is its *form*. Its *matter* the possibility of being one of infinitely many.

The boy saw what Socrates had drawn in the sand and took it to be – understood it to be; – a square. He already knew “what a square was” in that he knew that it was a four sided figure with equal and parallel sides – two horizontal and two vertical. He also took implicitly for granted that there were infinitely many squares equal to the given square and also infinitely many squares twice the area of the original. *What remained unique is the form which can be understood but cannot be seen.*

Young children can easily see that one square is bigger than another and may be told that the bigger of the two is described as being twice the size of the first and so has a rough idea of “twice the size” – something like “quite a lot bigger” – and as we grow up our everyday understanding of “twice the size” (or, “twice as big”) becomes more delicate and more exact when we learn measurement but we continue to use “about twice as big”or “ about twice the size” in everyday conversation as we should not see – or claim – that something was “seventeen times the size”.

The boy in *Meno* learns that the diagonal of a square is the length of the sides of a square twice the area of the original square. He does not, and cannot, literally “see” that it is. In *Meno* Plato does not say the discovery is the discovery of a feature in the form or nature of the square; nor does he advert to the fact that the new square is half the size of a square based on its own diagonal. He does not say that the boy has discovered a feature or element in form of the square, nor that there is an infinite number of squares each one based on the diagonal of the preceding square.

However, this much is clear. The boy sees a shape in the sand; he “sees it as” (Wittgenstein) a square; as what is called “a square”. In the dialogue, he is said to know the basic features of a square. He does not know how to discover or construct a square double the area of this square. But he accepts that there is such a square. Implicitly he accepts – as, crucially, does the reader – that there is no largest square.

It is a fundamental and inescapable feature of a square that there is a larger square; in the dialogue the question is how to discover a square twice the area of the given square but it is also true that there is a square three, four, five …..&c. times its area. Thus, the question of the size of the largest square does not properly arise because there is no largest square. Equally, there is no smallest square.

The nature of a square can be known but cannot be seen.

Similarly, the shapes 1,2,3 can be seen. Children who have been taught that they represent numbers and have learnt how to deal with numbers see that sequence of shapes as the second, third and fourth number in the infinite sequence 0,1,2,3,…&c. (Children often mistakenly take the sequence to represent the first,second and third number.) There is a property of the sequence 1,2,3 that is shared by no other sequence of three consecutive numbers in the infinitely many sets of three consecutive numbers -.e.g. 2,3,4; 3,4,5; 4,5,6…1001,1002,1003; 1001,1002,1003 ….. Why that assertion is true cannot be seen but can be understood.

1,2,3 is unique because all three numbers in that sequence are prime including 2 which is the only even prime number. The sequence 11, 12, 13 contains two prime numbers (11, 13) but, as is true of every sequence, contains at least one even number, and no even number other than 2 is prime because every even number is divisible by 2.

Someone who can see a square, sees a diagram that represents a square, and is told the opposite sides of the drawn square are to be taken to be parallel and equal – it is worth remarking here that that diagrams in Euclid represent lines, squares, rectangles, ….but that a Euclidean point or line (and other figures) as defined cannot be seen. In Book I, 1*. A point is that which has no parts, or which has no magnitude. 2. A line is length without breadth.*

In *Meno* the boy sees a figure that he has learnt is called “a square”. When a “diagonal” is added he sees it. When he is told that the diagonal is the length of the lines in a square twice the area he may believe that to be the case but he does not yet know. When he discovers that to be so he *sees* no more than before; but understands and knows. What he understands is the form of a square. His movement from seeing to questioning, to understanding and knowing is, perhaps, not unlike that of those in the cave in the *Republic.*