

The diagram illustrates the iterative construction of a square root using the Babylonian method. It shows a sequence of nested square roots, each adding a new term to the previous sum. The terms are 1, 1/2, 1/4, 1/8, 1/16, 1/32, 1/64, 1/128, and 1/256. The diagram uses horizontal lines to show how the sum of the terms increases and approaches the value of the square root of 2.