There are different methods of computing the square root of a number. Some of these require an initial seed value.

<https://www.davidhbailey.com/dhbpapers/india-sqrt.pdf>

<https://insa.nic.in/writereaddata/UpLoadedFiles/IJHS/Vol11_2_2_MNChannabasappa.pdf>

<https://math.mit.edu/~stevenj/18.335/newton-sqrt.pdf>

<https://www.math.upenn.edu/~kazdan/202F09/sqrt.pdf>

fractions:

<https://stackoverflow.com/questions/23344185/how-to-convert-a-decimal-number-into-fraction>