# Assignment13.3

ProblemStatement:-

Findsquare rootof number using Babylonian method.

1. Start withanarbitrarypositive start valuex (thecloserto theroot, thebetter).
2. Initializey=1.
3. Dofollowing until desiredapproximation is achieved.

* Getthenextapproximationfor rootusingaverageof x andy
* Sety= n/xSolution:-

ScalaApplication forfindingsquare rootofnumber usingBabylonianMethodisas follows:-

objectsquare\_root {

defsquareRoot(n:Int):Int={varx =n;

vary=1;

vare=0.000001;

while(x -y>e)

{

x= (x +y)/2;y = n/x;

}

returnx;

}

defmain(args: Array[String]){println("Enter a number:")

varnum:Int= scala.io.StdIn.readLine().toIntprintln(squareRoot(num));

}

}





