Assignment 13.3

Problem Statement :-

Find square root of number using Babylonian method.

1. Start with an arbitrary positive start value x (the closer to the root, the better).

2. Initialize y = 1.

3. Do following until desired approximation is achieved.

Get the next approximation for root using average of x and y

Set y = n/x

Solution:-

Scala Application for finding square root of number using Babylonian Method is as follows:-

object square\_root {

def squareRoot(n: Int): Int={

var x = n;

var y = 1;

var e = 0.000001;

while(x - y > e)

{

x = (x + y)/2;

y = n/x;

}

return x;

}

def main(args: Array[String]) {

println("Enter a number:")

var num: Int = scala.io.StdIn.readLine().toInt println(squareRoot(num));

}

}

