

```

PS C:\Users\saket\Git\CSWork\JAVA\CBT\CBT107BakshiSaket> java CBT107Driver
Enter a number (or <=0 to quit): 34
5.830951894845301
Enter a number (or <=0 to quit): 2
1.414213562373095
Enter a number (or <=0 to quit): 3
1.7320508075688772
Enter a number (or <=0 to quit): 4
2.0
Enter a number (or <=0 to quit): 5
2.23606797749979
Enter a number (or <=0 to quit): 6
2.449489742783178
Enter a number (or <=0 to quit): 03495
59.11852847298444
Enter a number (or <=0 to quit): 0
PS C:\Users\saket\Git\CSWork\JAVA\CBT\CBT107BakshiSaket>

```

```
import java.util.Scanner;
```

```
public class CBT107Driver
```

```

{
    public static void main(String[] args) {
        Scanner key = new Scanner(System.in);
        double n;

        CBT107BakshiSaket sqrt = new CBT107BakshiSaket();

        do
        {
            System.out.print("Enter a number (or <=0 to quit): ");
            n = key.nextDouble();

            if(n > 0)
            {
                sqrt.setNumber(n);
                System.out.println(sqrt.getRoot());
            }
        } while(n > 0);
    }
}

```

```
public class CBT107BakshiSaket
```

```

{
    double n;
    int iterations;

    public void setNumber(double number)
    {

```

```
        n = number;
        iterations = 7;
        if(n<10)
            iterations++;
    }

    public double getRoot()
    {
        double x = n/4;
        for(int i = 0; i < iterations; i++)
        {
            x = (x+(n/x))/2.0;
        }
        return x;
    }
}
```