

Problem 1: Big Data - Scala Coding.

A Company “Star Grocery Store” is planning a big sale at which they will give their customers a special promotional discount.

Each customer that purchases a product from the company has a unique customerID numbered from 0 to N-1.

“Brien” the marketing head of the company has selected bill amounts of the N customers for the promotional scheme. The discount will be given to customers whose bill amounts are perfect squares.

The customers may use this discount on a future purchase.

Write an algorithm to help Brien to find the number of customers that will be given discounts.

Input: The first line consists of an integer numOfCust, representing the number of customers whose bills are selected for the promotional discount (N).

The second line consists of N space-separated Integers bill1, bill2, bill3.... representing the bill amounts of the N customers selected for the promotional discount.

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10 20 16 25 30 40 36

Output: print an integer representing the number of customers

Code:

```
object PerfectSquare {
  def main(args:Array[String])
  {
    var count:Int = 0;
    print("Enter number: ")
    var num=scala.io.StdIn.readInt()
    print("Enter bills: ")
    var str = scala.io.StdIn.readLine()
    val x : Array[String] = str.split( regex = " ")
    val y : Array[Int] = x.map(x=>x.toInt)
    //for(i<- y) print(i)

    for(i<-0 to num-1)
    {
      for(j<-1 to scala.math.sqrt(y(i)).toInt)
      {
        if (j*j==y(i))
        {
          count=count+1
        }
      }
    }
    print(count)
  }
}
```

Output:

```
"C:\Program Files\Java\jdk1.8.0_202\bin\java.exe" ...
Enter number: 5
Enter bills: 12 16 25 81 90
3
Process finished with exit code 0
```

