Problem Set 4 Exercise #22: Square Sum

Reference: Lecture 12 notes

Learning objective: Recursion

Estimated completion time: 25 minutes

Problem statement:

[CS1101 AY1999/00 Semester 2 Exam Q4(b)]

Given a positive integer **num**, design a static recursive method

```
int squareSum(int num)
```

that returns the sum of all the digits of **num** in square.

For example, if **num** is 12345, then return value is 55 because 1*1 + 2*2 + 3*3 + 4*4 + 5*5 = 55.

Write a program **PS4_Ex22_SquareSum.java** for the above task. You should not use any loop structures (*for*, *while* or *do-while* loop) in your program.

Sample run #1:

```
Enter a positive integer: 1
Square sum of all digits is 1
```

Sample run #2:

```
Enter a positive integer: 12345
Square sum of all digits is 55
```