

Problem Set 4 Exercise #29: Odd Digit Sum

Reference: Lecture 12 notes

Learning objective: Recursion

Estimated completion time: 35 minutes

Problem statement:

[CS1101 AY2003/04 Semester 1 Exam, Q18(b)]

Write a recursive function

```
int is_sum_odd(int num)
```

that takes a positive integer **num** as parameter and returns 1 if the sum of individual digits is odd, or 0 otherwise.

Write a program **odd_digit_sum.c** 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: 12
Sum of digits for 12 is odd
```

Sample run #2:

```
Enter a positive integer: 123789
Sum of digits for 123789 is even
```