

square

Write a function **square1()** that returns the square of a positive integer number *num*, by computing the sum of odd integers starting with 1 as shown in the example below. The result is returned to the calling function. For example, if *num* = 4, then $4^2 = 1 + 3 + 5 + 7 = 16$ is returned; if *num* = 5, then $5^2 = 1 + 3 + 5 + 7 + 9 = 25$ is returned. The function prototype is:

```
int square1(int num);
```

Write another function **square2()** that passes the result through the pointer parameter, *result*. For example, if *num* = 4, then $*result = 4^2 = 1 + 3 + 5 + 7 = 16$; if *num* = 5, then $*result = 5^2 = 1 + 3 + 5 + 7 + 9 = 25$. The function prototype is:

```
void square2(int num, int *result);
```

For separate program testing: The following sample program template is given for testing the functions:

```
#include <stdio.h>
int square1(int num);
void square2(int num, int *result);
int main()
{
    int number, result=0;

    printf("Enter the number: \n");
    scanf("%d", &number);
    printf("square1(): %d\n", square1(number));
    square2(number, &result);
    printf("square2(): %d\n", result);
    return 0;
}
int square1(int num)
{
    /* Write your code here */
}
void square2(int num, int *result)
{
    /* Write your code here */
}
```

Some sample input and output sessions are given below:

(1) Test Case 1:
Enter the number:
4
square1(): 16
square2(): 16

(2) Test Case 2:

Enter the number:

0

square1(): 0

square2(): 0