

Name (PRINTED): _____

Student ID #: _____

Section # (or TA's: _____
name and time)

CMSC 106

Quiz #6

Fall 2007

1. [20 pnts] Write a function that takes in a single integer and writes the table with that integer on the diagonal. You may assume the integer coming in is greater than or equal to 2. The program may use neither the while nor the do-while structure. (hint: it must use the for loop structure). Don't just write a `printf` like `printf("3 4 5 \n")`.

The output, when a 3 is passed in, is:	The output, when a 5 is passed in, is:
3 4 5	5 6 7 8 9
2 3 4	4 5 6 7 8
1 2 3	3 4 5 6 7
	2 3 4 5 6
	1 2 3 4 5

```
#include <stdio.h>
```

```
void drawSquare(int i){
    int row, col;
    int startval = i;
    for (row = 0; row < i; row++){
        for (col = 0; col < i; col++){
            printf("%4d", startval+col);
        }
        printf("\n");
        startval--;
    }
    return;
}
```

```
int main(){
    drawSquare(3);
    drawSquare(5);
    return 0;
}
```

2. [10 pnts] Write the output of the following code. You do not need to worry about spaces - just make sure the correct values are on the correct lines.

```
#include <stdio.h>

int f1(int i){
    int j = 5, k = 0;
    for (j = 10; j > i; j--){
        k+=i;
    }
    return k;
}

int f2(int i){
    int j, sum=i;
    for (j = 1; j < i; j++){
        printf("%d: sum = %d\n",j,sum);
        sum +=i;
    }
    return sum;
}

int main(){
    printf("%d\n",f1(3));
    printf("%d\n",f2(5));
    return 0;
}
```

```
__21_____
__1: sum = 5_____
__2: sum = 10_____
__3: sum = 15_____
__4: sum = 20_____
__25_____
_____
_____
```