1- Consider the following functions:

```c
void spaces(int m){
    for (int i=1; i<=m; i++) cout << " ";
}
void line(int m){
    for (int i=1; i<=m; i++) cout << "*";
    cout << endl;
}
```

Which code fragment prints out the following pattern?

```
*****
* *
* *
* *
*****
```

(a) `line(5);`
(b) `line(5);`
(c) `line(5);`
(d) `line(5);`

2- What is the returned value of the function f?

```c
int f(int x, int y){return (x>y) ? x : y; }
```

(a) The sum x + y.
(b) The deference x - y.
(c) The maximum of x and y (i.e. the value of the larger of x and y).
(d) The minimum of x and y (i.e. the value of the smaller of x and y).
3- Consider the following function declaration:
```c
int sum(int);
```
The function `sum` should take as input an integer `n` and return the value 0 if \( n \leq 0 \). If \( n > 0 \), the value returned should be the sum \( 1+2+3+\ldots+(n-1)+n \) of the first \( n \) positive integers. Write the definition of the function `sum` in the space below.

4- Find the output of the following:
```c
#include <iostream.h>
void rotate (int&, int&, int&);

void main() {
    int a=1, b=2, c=3;
    rotate(a, b, c);
    cout << a << " 	" << b << " 	" << c << endl;
}
void rotate (int& x, int& y, int& z) {
    int temp = x;
    x = y; y = z; z = temp;
}
```
Answers

1- c

2- c

3- int sum (int n){
    int i, s = 0;
    for (i = 1; i <= n; i++)
        s += i;
    return s;
}

4- 2 3 1