

Subiectul I

1) ①

2) $f(3)$

$$r = 1 + f(2) = 5$$

$$r = 1 + f(2) + 2 + f(1) = 8$$

$$r = 3 + f(2) + f(1) + f(0) + 3 = 11$$

$f(2)$

$$r = 1 + f(1) = 2$$

$$r = 1 + f(1) + 2 + f(0) = 4$$

$f(1)$

$$r = 1 + f(0)$$

$f(0)$

$$r = 0$$

3) ①

4) $\{1, 2, 3, 5, 6, 4\}, \{1, 2, 3, 6, 4, 5\}, \{1, 2, 3, 6, 5, 4\}, \{1, 2, 5, 3, 6, 4\}, \{1, 2, 5, 6, 3, 4\}$
 $\{1, 2, 6, 3, 4, 5\}, \{1, 2, 6, 3, 5, 4\}, \{1, 2, 6, 5, 3, 4\}$

5) ①

6) ①

7) ①

Subiectul II

1. ~~Subiectul II~~

a) 20

b) 8, 81

c) #include <iostream>
using namespace std;
int main()

```
{
    int m, d = 1, s = 0;
    cin >> m;
    while (d * d < m)
    {
        if (m % d == 0 && d % 2 != m / d % 2)
            s += d + m / d;
        d++;
    }
```

```
if (d * d == m) s += d;
cout << s;
return 0;
}
```

d) citește m

s ← 0

pentru d ← 1, [√m] executa

doar m % d = 0 și d % 2 ≠ [m/2] % 2 atunci

s ← s + d + [m/d]

d ← d + 1

doar d * d = m atunci s ← s + d

scrie s

2. struct prajitura {

unsigned short number;

struct {

unsigned int cod;

unsigned int countote;

} ingredient[20];

} p;

3.

if(i < j && i + j < 6 || i > j && i + j > 6)

a[i][j] = 'a';

else a[i][j] = 'b';