

```

void displayValues(int[][MAX_COLS]) //read and display elements
{
    int i,j;
    for(i=0;i<MAX_ROWS;i++)
    {
        for(j=0;j<MAX_COLS;j++)
            printf("%4d ", t[i][j]);
        printf("\n");
    }
}

```

Add matrices

```

int i,j;
for (i=0;i<MAX_ROWS;i++)
{
    for(j=0;j<MAX_COLS;j++)
        result[i][j]=a[i][j]+b[i][j];
}
displayValues(result);

```

Subtract matrices

```

int i,j;
for(i=0;i<MAX_ROWS;i++)
{
    for(j=0;j<MAX_COLS;j++)
        result[i][j]=a[i][j]-b[i][j];
}
displayValues(result);

```

Exam's results are transferred into a function in a way of array composed of integers (integers represent grades). This array (flow), is consisted of grades 1, 2, 3, 4 and 5. Number of array's elements is nrGrades. Write your own function that returns most common grade.

```

int commonGrade(int *flow, int nrGrades)
{
    int grade[5] = {0}, commonGrade = 0, i;

    for(i = 0; i < nrGrades; i++)
        grade[flow[i] - 1]++;

    for(i = 1; i < 5; i++)
    {
        if(grade[i] > grade[commonGrade])
            commonGrade = i;
    }
}

```

```
        return commonGrade + 1;
    }
```

Example:

Write your own function that shifts array p (given, integer type) for a number of places. Array p is consisted of N number of elements, and will be shifted left for negative value, or shifted right for positive value (adjustment < N). Empty places are filled with zeroes.

Example of shifting:

shift = 2 and array[10 40 50 60 12]:
Before shifting: [10 40 50 60 12]
Shifted array: [0 0 10 40 50]

```
void shiftArray(int *p, int N, int shift)
{
    int i;

    /* if shifting right */
    if (shift > 0 && shift < N)
    {
        for (i = N - 1 - shift; i >= 0; i --)
            p[i + shift] = p[i];
        for (i = shift - 1; i >= 0; i --)
            p[i] = 0;
    }
    /* if shifting left */
    else if (shift < 0 && -shift < N)
    {
        shift = -shift;
        for (i = 0; i <= N - 1 - shift; i++)
            p[i] = p[i + shift];
        for (i = N - shift; i < N; i++)
            p[i] = 0;
    }
}
```