Given the declaration of class Matrix as followings:

class Matrix

{

private:

int\*\* mat;

int rows;

int cols;

public:

Matrix(int rows, int cols);

~Matrix();

void printMatrix();

void setElement(int rows, int cols, int value);

void setMatrix(int rows, int cols, int\*\*);

void addMatrix(int rows, int cols, int\*\*);

void addMatrix(const Matrix&);

};

The class Matrix performs the following operations:

1. Allocate dynamically the matrix with given **rows** and **cols** and initializes the matrix with 0s (zeros) for all elements.
2. Free all alocated memories when an object is destroyed.
3. Print out the matrix.
4. Set an element of matrix with given values.
5. Set all elements of matrix with an 2D arrays.
6. Performs an addition operation to current matrix with an 2D arrays.
7. Performs an addition operation to current matrix with another Matrix.

You need to complete the following taks:

1. Write the definition for all methods, constructor and destructor in class Matrix.
2. Template the class Matrix so that the main program (commented in main\_init.cpp) is executed correctly: