Program-02

Write a program to declare a matrix A[][] of order (M x N) where 'M' is the number of rows and 'N' is the number of columns such that the value of 'M' must be greater than 0 and less than 10 and the value of 'N' must be greater than 2 and less than 6. Allow the user to input digits (0 - 7) only at each location, such that each row represents an octal number.  
  
Example:  
2 3 1 (decimal equivalent of 1st row = 153 i.e. 2x82 + 3x81 + 1x80)  
4 0 5 (decimal equivalent of 2nd row = 261 i.e. 4x82 + 0x81 + 5x80)  
1 5 6 (decimal equivalent of 3rd row = 110 i.e. 1x82 + 5x81 + 6x80)  
  
Perform the following tasks on the matrix:  
  
 Display the original matrix.  
 Calculate the decimal equivalent for each row and display as per the format given below.  
  
Test your program for the following data and some random data:  
  
Example 1:  
  
INPUT:  
M = 1  
N = 3  
ENTER ELEMENTS FOR ROW 1: 1 4 4  
  
OUTPUT:  
FILLED MATRIX DECIMAL EQUIVALENT  
1 4 4 100  
  
Example 2:  
  
INPUT:  
M = 3  
N = 4  
ENTER ELEMENTS FOR ROW 1: 1 1 3 7  
ENTER ELEMENTS FOR ROW 2: 2 1 0 6  
ENTER ELEMENTS FOR ROW 3: 0 2 4 5  
  
OUTPUT:  
FILLED MATRIX DECIMAL EQUIVALENT  
1 1 3 7 607  
2 1 0 6 1094  
0 2 4 5 165  
  
Example 3:  
  
INPUT:  
M = 3  
N = 3  
ENTER ELEMENTS FOR ROW 1: 2 4 8  
  
OUTPUT:  
INVALID INPUT  
  
Example 4:  
  
INPUT:  
M = 4  
N = 6  
  
OUTPUT:  
OUT OF RANGE