2D Arrays
(Assignment Solutions)

Question 1 :

```
int arr[][3] = { {4, 7, 8}, {8, 8, 7} };
int n = 2, m = 3;

int countOf7 = 0;
for(int i=0; i<n; i++) {
   for(int j=0; j<m; j++) {
      if(arr[i][j] == 7) {
          countOf7++;
       }
   }
}

cout << "count of 7 is : " << countOf7 << endl;
```

Question 2 :

```
int nums[][3] = { {1,4,9},{11,4,3},{2,2,3} };
int n = 3, m = 3;
int sum = 0;

//sum of 2nd row elements
for(int j=0; j<m; j++) {
   sum += nums[1][j];
}

cout << "sum is : " << sum <<endl;
```

Question 3 :

```
int row = 2, column = 3;
int matrix[][column] = { {2, 3, 7}, {5, 6, 7} };
```

```cpp
// Transpose the matrix
int transpose[column][row] = {{0}};

for(int i=0; i<row; i++) {
   for (int j=0; j<column; j++) {
       transpose[j][i] = matrix[i][j];
   }
}

//Print the transpose
for(int i=0; i<column; i++) {
   for (int j=0; j<row; j++) {
       cout << transpose[i][j] << "    ";
   }
   cout << endl;
}
```