



```
for (int i=0; i < m; i++)
```

```
{  
    for (int j=0; j < n; j++)
```

```
        printf("%d ", matry[i][j]);
```

```
    }  
    printf("\n");
```

```
    trace(m, matrytrace, matry);
```

```
    printf("\n");
```

```
for (int i=0; i < m; i++)
```

```
{  
    for (int j=0; j < n; j++)
```

```
        printf("%d ", matrytrace[i][j]);
```

```
    }  
    printf("\n");
```

```
return 0;
```

```
void trace(int m, int matrytrace[100], int matry[100][100])
```

```
{
```

```
for (int i=0; i < m; i++)
```

```
{  
    for (int j=0; j < n; j++)
```

```
        printf("%d ", matry[i][j]);
```

```
    }  
    printf("\n");
```

```
    trace(m, matrytrace, matry);
```

```
    printf("\n");
```

```
for (int i=0; i < m; i++)
```

```
{  
    for (int j=0; j < n; j++)
```

```
        printf("%d ", matrytrace[i][j]);
```

```
    }  
    printf("\n");
```

```
return 0;
```

```
void trace(int m, int matrytrace[100], int matry[100][100])
```

```
{
```



```
int memoization[100]
```

```
memoization[0] = 0;
```

```
for (int i = 0; i < m; i++)
```

```
{  
    for (int j = 0; j < m; j++)
```

```
    {  
        if (i == 0)
```

```
        {  
            memoization[j] = matry[0][j]
```

```
        }  
        else if (matry[i][j] < memoization[j])
```

```
        {  
            memoization[j] = matry[i][j]
```

```
        }  
    }  
}
```

```
for (int i = 0; i < m; i++)
```

```
{  
    for (int j = 0; j < m; j++)
```

```
    {  
        if (i == (m-1-j))
```

```
        {  
            matry[i][j] = memoization[j];
```

```
            matrytrace[i][j] = matry[i][j]
```

```
        }  
    }  
}
```