

```
// create 2D mesh array
#include "global.h"
void mesh(double X[], double Y[]){
    X[0] = a; // boundaries
    X[M+1] = b;
    Y[0] = a;
    Y[M+1] = b;
    for(int i = 1; i <= M; i++){
        X[i] = a + ((double)i - 0.5)*dx; // within space
        Y[i] = a + ((double)i - 0.5)*dy; // within space
    }
}
```