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311 CC

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Examen - Programarea calculatoarelor

①

```
#include <math.h>
#include <stdio.h>

int e_prim (int n)
{
    if (n==0 || n==1)
        return 0;
    if (n==2)
        return 1;
    if (n%2==0)
        return 0;
    int d=3;
    while (d<=sqrt(n))
    {   if(n%d==0)
            return 0;
        d+=2;
    }
    return 1;
}

void extrage_prime_diag ( int mat[][], int n, int a, int b, int *v, int *nr)
{
    for (int i=1;i<=n; i++)
        for (int j=1; j<=n; j++)
            if ( mat[i][j] >=a && mat[i][j] <=b && e_prim (mat[i][j])== 1)
                { v[++*nr]= mat[i][j]; } *nr= *nr+1; v[*nr]= mat[i][i]; }
}

int main ()
{   int n, mat[10][10], a,b, nr, *v;
    scanf ("%d", &n);   scanf("%d %d", &a, &b);
    for (int i=1; i<=n; i++)
        for(int j=1; j<=n; j++)
            scanf ("%d", &mat[i][j]);
    v= (int *) malloc (10 * sizeof(int));
    extrage_prime_diag ( mat, n, a, b, v, &nr);
```

```
    for ( int i=0; i<n; i++)
        printf ( "%d " , v[i]);

}
```