

```
#include <stdio.h>
#include <conio2.h>
#include <locale.h>
#define dim 9

int l[dim][dim] = {
    {0, 0, 0, 0, 0, 0, 0, 0, 0},
    {0, 0, 0, 0, 1, 0, 0, 0, 0},
    {0, 0, 0, 1, 1, 1, 0, 0, 0},
    {0, 0, 1, 1, 1, 1, 1, 0, 0},
    {0, 1, 1, 1, 1, 1, 1, 1, 0},
    {0, 0, 2, 0, 0, 0, 2, 0, 0},
    {0, 0, 2, 0, 0, 0, 2, 0, 0},
    {0, 0, 2, 2, 2, 2, 2, 0, 0},
    {15, 15, 15, 15, 15, 15, 15, 15, 15}};

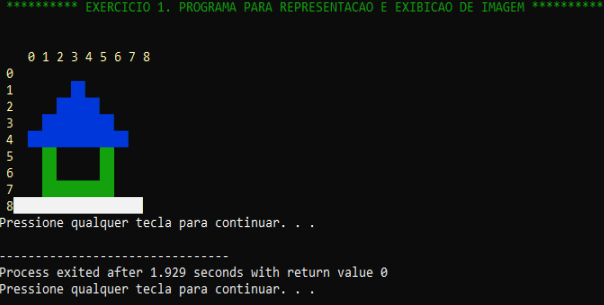
void exiba (int l [dim][dim]) {
    int i;
    int j;
    for( i = -1 ; i < dim ; i++) {
        textcolor(14);
        for( j = -1 ; j < dim ;
j++)
            if ( i < 0 && j
< 0 ) printf(" ");
            else if ( i < 0 )
printf("%2d", j);
            else if ( j < 0 )
printf("\n%2d", i);
            else {


                textcolor (l[i][j]);

                printf("%c%c", 219, 219);
            }
        }
        textcolor(8);
    }
}

int main (void) {
    textcolor(GREEN);
```

```
***** EXERCICIO 1. PROGRAMA PARA REPRESENTACAO E EXIBICAO DE IMAGEM *****
0 1 2 3 4 5 6 7 8
0
1
2
3
4
5
6
7
8
Pressione qualquer tecla para continuar. . .
-----
Process exited after 1.029 seconds with return value 0
Pressione qualquer tecla para continuar. . .
```



<pre> printf(" ***** EXERCICIO 1. PROGRAMA PARA REPRESENTACAO E EXIBICAO DE IMAGEM ***** \n\n"); //setlocale (LC_ALL,"");  exiba (I);  textcolor(WHITE); printf("\n"); system("pause"); return 0; } </pre>	
<pre> #include &lt;stdio.h&gt; #include &lt;conio2.h&gt; //#include &lt;locale.h&gt; #include "fila.h" #define dim 11 #define cor(i,j) (i &gt;= 0 &amp;&amp; i &lt; dim &amp;&amp; j &gt;= 0 &amp;&amp; j &lt; dim ? I[i][j] : -1) #define par(i,j) ((i)*100+(j)) #define lin(p) ((p)/100) #define col(p) ((p)%100)  int I[dim][dim] = {     {-1, -1, -1, -1, -1, -1, -1, -1, -1, -1,-1},     {-1,0, 0, 0, 0, 0, 0, 0, 0, -1},     {-1,0, 0, 0, 0, 1, 0, 0, 0, -1},     {-1,0, 0, 0, 1, 1, 1, 0, 0, -1},     {-1,0, 0, 1, 1, 1, 1, 1, 0, -1},     {-1,0, 1, 1, 1, 1, 1, 1, 1, 0, -1},     {-1,0, 0, 2, 0, 0, 0, 2, 0, 0, -1},     {-1,0, 0, 2, 0, 0, 0, 2, 0, 0, -1},     {-1,0, 0, 2, 2, 2, 2, 2, 0, 0, -1},     {-1,0, 0, 0, 0, 0, 0, 0, 0, 0, -1},     {-1, -1, -1, -1, -1, -1, -1, -1, -1, -1,-1}, };  void exiba (int I [dim][dim]) {     int i;     int j;     for( i = -1 ; i &lt; dim ; i++) { </pre>	<pre> ***** EXERCICIO 2. CORRECAO DO PROGRAMA ***** </pre>  <pre> 0 1 2 3 4 5 6 7 8 9 10 0 1 2 3 4 5 6 7 8 9 10 Nova cor (ou -1 para sair)? 4 Posicao? 4 2 0 1 2 3 4 5 6 7 8 9 10 0 1 2 3 4 5 6 7 8 9 10 Nova cor (ou -1 para sair)? -1 Pressione qualquer tecla para continuar. . . ----- Process exited after 10.55 seconds with return value 0 Pressione qualquer tecla para continuar. . . </pre>

<pre>                 textcolor(14);                 for( j = -1 ; j &lt; dim ; j++)                     if ( i &lt; 0 &amp;&amp; j &lt; 0 ) printf(" ");                     else if ( i &lt; 0 ) printf("%2d", j);                     else if ( j &lt; 0 ) printf("\n%2d", i);                     else {                  textcolor (l[i][j]);                  printf("%c%c", 219, 219);                 }             }             textcolor(8);         }  void colorir ( int l[dim][dim], int i, int j, int n) {     Fila F = fila (dim * dim);     int a = l[i][j];     l[i][j] = n;     enfileira (par (i , j), F);     while ( !vaziaf(F) ) {         int p = desenfileira (F);          i = lin(p);         j = col(p);         if ( cor(i-1,j)==a ) { l[i- 1] [j] = n; enfileira(par(i-1, j), F); }         if ( cor(i,j+1)==a ) { l[i] [j+1] = n; enfileira(par(i, j+1), F);         }          if ( cor(i+1,j)==a ) { l[i+1] [j] = n; enfileira(par(i+1, j), F);         }          if ( cor(i,j-1)==a ) { l[i] [j-1] = n; enfileira(par(i, j-1), F); }         }         destroif(&amp;F);     } </pre>	
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```

int main (void) {
    int i , j , n;
    printf(" *****
EXERCICIO 2. CORRECAO DO
PROGRAMA *****
\n\n\n");//, setlocale (LC_ALL, "");
    while ( 1 ) {
        exiba(l);
        printf("\n\n Nova cor
(ou -1 para sair)? ");
        scanf("%d", &n);
        if ( n < 0 ) break;
        do {

            printf("Posicao? ");
            scanf("%d
%d", &i, &j);
        } while ( i < 0 || i >=
dim || j < 0 || j >= dim );
        colorir (l , i , j , n);
    }

    system ("pause");
    return 0;
}

```