



```
#include <stdio.h>
#include <assert.h>
#define SIZE_OF_ARRAY 7
#define
NUM_OF_ROWS_OF_TWO_DIM_CHAR_ARRAY
12
#define LENGTH(A) (sizeof(A)/sizeof(A[0]))
char (*fn(size_t index)) [] ;
typedef char (*char_pt_t)[] ;
char (*Fn()) [] [16];
typedef char (*two_dim_char_array_pt_t)[][16];
int main()
{
    size_t i;
    char_pt_t char_pt;
    two_dim_char_array_pt_t two_dim_char_array_pt;
    for (i=0;i<SIZE_OF_ARRAY;i++) {
        char_pt = fn(i);
        printf("%16s\n",*char_pt);
    }
    char_pt = fn(SIZE_OF_ARRAY);
```

```
printf ("%16s",*char_pt);
```

```
two_dim_char_array_pt = Fn();
```

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

```
for
```

```
(i=0;i<NUM_OF_ROWS_OF_TWO_DIM_CHAR_ARRAY;i++) {
```

```
    printf("%16s\n",(*two_dim_char_array_pt)[i]);  
}
```

```
return 0;
```

```
}
```

```
char_pt_t fn(size_t index) {
```

```
size_t i;
```

```
static char empty_set[] = "{ }";
```

```
static char array[][16] = {
```

```
    "DOMINGO",
```

```
    "LUNES",
```

```
    "MARTES",
```

```
    "MIERCOLES",
```

```
    "JUEVES",
```

```
    "VIERNES",
```

```
"SABADO"
```

```
};
```

```
static_assert(SIZE_OF_ARRAY ==  
LENGTH(array),"SIZE_OF_ARRAY y  
LENGTH(array) deben ser iguales");
```

```
for (i=0;i<LENGTH(array);i++){  
    if (index == i) {  
        return array[i];  
    }  
}
```

```
    return &empty_set;  
}
```

```
two_dim_char_array_pt_t Fn()  
{  
    static char two_dim_array[][16] = {  
        "ENERO",  
        "FEBRERO",  
        "MARZO",  
        "ABRIL",  
        "MAYO",
```

```
"JUNIO",  
"JULIO",  
"AGOSTO",  
"SEPTIEMBRE",  
"OCTUBRE",  
"NOVIEMBRE",  
"DICIEMBRE"  
};  
static_assert(  
    NUM_OF_ROWS_OF_TWO_DIM_CHAR_ARRAY ==  
    LENGTH(two_dim_array),  
    "NUM_OF_ROWS_OF_TWO_DIM_CHAR_ARRAY \  
y LENGTH(two_dim_array) deben ser \  
iguales");  
    return &two_dim_array;  
}
```