



INITIALIZING ARRAYS

Static Initialization

When the array element values are known at compile time



INITIALIZING AUTOMATIC ARRAYS

- **Pre-2015 ANSI Standard**

- `int scores[5] = { 0, 1, 2, 3, 4 };`
- `int scores[] = { 0, 1, 2, 3, 4 };`
- `int scores[5] = {};`

- **Post-2015 ANSI Standard**

- `int scores[5]{ 0, 1, 2, 3, 4 };`
- `int scores[]{ 0, 1, 2, 3, 4 };`
- `int scores[5]{};`



INITIALIZATION EXAMPLE

```
int month_length[12] =  
{  
    31, 28, 31, 30,  
    31, 30, 31, 31,  
    30, 31, 30, 31  
};
```

```
int month_length[] =  
{  
    31, 28, 31, 30,  
    31, 30, 31, 31,  
    30, 31, 30, 31  
};
```



INITIALIZING DYNAMIC ARRAYS

- Pre-2015 ANSI Standard
 - Dynamic array could not be initialized *en bloc*
- Post-2015 ANSI Standard
 - `int* scores = new int[5]{ 0, 1, 2, 3, 4 };`
 - ~~`int* scores = new int[] { 0, 1, 2, 3, 4 };`~~
 - `int* scores = new int[5]{};`
 - `int* scores = new int[size]{};`
 - `int* scores = new int[size]{0, 1, 2, 3, 4};`

TWO-DIMENSIONAL ARRAYS

```
int test_scores[5][4]=
{
    95, 98, 97, 96,
    79, 89, 79, 85,
    99, 98, 99, 99,
    90, 89, 83, 86,
    75, 72, 79, 69
};
```

```
int test_scores[][4]=
{
    95, 98, 97, 96,
    79, 89, 79, 85,
    99, 98, 99, 99,
    90, 89, 83, 86,
    75, 72, 79, 69
};
```