INITIALIZING ARRAYS

Static Initialization

When the array element values are known at compile time

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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
};
```