Make an Array

Each item in an array is called an *element*, and each has an *index* value to mark its position within the array. Just like coordinates on the screen, index values for an array start counting from 0. For instance, the first element in the array has the index value 0, the second element in the array has the index value 1, and so on. If there are 20 values in the array, the index value of the last element is 19. Figure 10-1 shows the conceptual structure of an array.

```
int[] years = { 1920, 1972, 1980, 1996, 2010 };
```
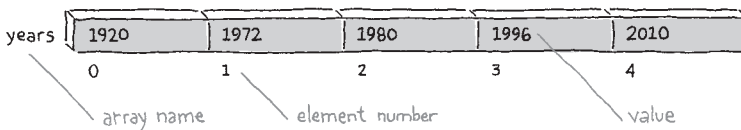

Figure 10-1. An array is a list of one or more variables that share the same name.

Using arrays is similar to working with single variables; it follows the same patterns. As you know, you can make a single integer variable called *x* with this code:

```
int x;
```

To make an array, just place brackets after the data type:

```
int[] x;
```

The beauty of creating an array is the ability to make 2, 10, or 100,000 variable values with only one line of code. For instance, the following line creates an array of 2,000 integer variables:

```
int[] x = new int[2000];
```