```
1 //using is a directive
 2 //System is a namespace, namespace groups related features together
 3 //System is needed so we can use Console, classes
 4 using static System.Console;
 5 //outermost level of grouping
 6 class Program
 7 {
 8
        //Main is a method
 9
        //this is the entry point into program
10
        static void Main()
11
12
            //creates our array
13
            //length of the array is 2
14
            //for an array of length n, the indexes go from 0 to n-1
15
            //n=2, index go from 0 to 1
16
            int[] arr = new int[2];
17
            arr[0] = 45;//store the value 45 at index 0
            arr[1] = 34;//store the value 34 at index 1
18
           WriteLine($"Value stored at index 0 is {arr[0]}");
19
20
            //when we divided integers using /,
            //we produce a number that tells how many whole times the bottom goes into the top
21
           WriteLine($"Number of times bottom goes into top: {arr[0] / arr[1]}");
22
23
            //to produce a result with a decimals, convert arr[0] to double form using
24
            //a cast (double)arr[0]
25
           WriteLine($"Decimal ratio is {(double)arr[0] / arr[1]}");
26
            //we can also initialize an array usinga list of values after the square brackets
27
            //notice that the length is implied by writing a certain number of entries
            string[] strArray = new string[] { "Hello, ", "World!" };
28
            WriteLine(strArray[0] + " " + strArray[1]);
29
30
        }
31 }
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52
53 ///if the lenth is n, the indices go from 0 to n-1
54 //int[] arr = new int[3];//3 indicates length of array
\frac{55}{\arctan[0]} = 45;//save 45 inside the array at index 0
              arr[1] = 34;//save 34 inside the array at index 1
56 //
57 //
              arr[2] = -23;//save -23 inside the array at index 2
58 //
              //print the value 45 to the user
59 //
              WriteLine($"Value at index 0:{arr[0]}");
60 //
              //print the sum of 34 and -23 to the user
              WriteLine($"Sum of values at indexes 1 and 2: {arr[1] + arr[2]}");
61 //
62 ////create new array with initializer
63 //string[] strArray = new string[] { "This is a great", "day to be alive." };
```