

foreach

<https://csci-1301.github.io/about#authors>

June 22, 2021 (03:43:14 AM)

Contents

1	Practicing foreach Loop	1
1.1	Problem 1	1
1.2	Problem 2	2
1.3	problem 3	2

1 Practicing foreach Loop

1.1 Problem 1

- Create a new project, and replace the content of the *main* method with the following code:

```
int[] primes = {2, 3, 5, 7, 11, 13, 17, 19}
for(int i = 0; i < primes.Length; i++)
{
    Console.WriteLine(primes[i]);
}
```

- Execute the code. You should see the elements of the array *primes* (the prime numbers less than 20) in the console.
- Rewrite the code with **foreach** statement. Try to code yourself. Then check your answer with the following answer.

```
int[] primes = {2, 3, 5, 7, 11, 13, 17, 19}
foreach(int n in primes)
{
    Console.WriteLine(n);
}
```

- Explain two differences between the above codes.
- Which one is easier to understand?
- Which one needs fewer variables?

1.2 Problem 2

- Can you rewrite the following code with `foreach` statement? Why?

```
double [] numbers = {1.2, 4.3, 5.7, 11, -3.13, 1.7}
```

```
for(int i = 0; i < numbers.Length; i++)  
{  
    numbers[i] = numbers[i] * 1.1;  
    Console.WriteLine(numbers[i]);  
}
```

1.3 problem 3

- Can you rewrite the following code with `foreach` statement? Why?

```
double [] numbers = {1.2, 4.3, 5.7, 11, -3.13, 1.7}
```

```
for(int i = 0; i < numbers.Length - 1; i++)  
{  
    Console.WriteLine((numbers[i] + numbers[i+1] )/2);  
}
```