

```
// Attached: HW 2B(1)
// File: HW_2B1.pdf
//
//
// Programmer: Gage Alvarez
// Class: CS 1B
// Instructor: Med Mogasemi
//
//
// Program: random numbers in array
//
// Description:
// populate array with random numbers, then find the greatest and smallest
// elements of the array
```

```
#include <cstdlib>
#include <iostream>
```

```
int findSmallestElement(const int numbers[]);
int findGreatestElement(const int numbers[]);
```

```
int main() {

    int numbers[10]{};
    int smallest = 0;
    int greatest = 0;
    srand(time(0));
    for (int i = 0; i < 10; i++) {
        numbers[i] = rand() % 100 + 1;
    }

    std::cout << "List of elements:" << '\n';
    for (int i = 0; i < 10; i++) {
        std::cout << numbers[i] << ' ';
    }
    std::cout << '\n';
    smallest = findSmallestElement(numbers);
    std::cout << "Smallest: " << smallest << '\n';
    greatest = findGreatestElement(numbers);
    std::cout << "Greatest: " << greatest << '\n';
    return 0;
}
```

```
// function findSmallestElement finds the smallest element in the array of
// numbers
// Input: array of numbers: numbers
// Output: smallest number in array: returned to main
```

```
int findSmallestElement(const int numbers[]) {
    int smallest = numbers[0];
    for (int i = 0; i < 10; i++) {
        if (numbers[i] < smallest) {
            smallest = numbers[i];
        }
    }
}
```

```
|   }  
|   return smallest;  
| }
```

```
// function findGreatestElement finds the greatest element in the array of  
// numbers
```

```
// Input: array of numbers: numbers
```

```
// Output: greatest number in array: returned to main
```

```
int findGreatestElement(const int numbers[]) {
```

```
|   int greatest = numbers[0];  
|   for (int i = 0; i < 10; i++) {  
|       if (numbers[i] > greatest) {  
|           greatest = numbers[i];  
|       }  
|   }  
|   return greatest;  
| }
```

```
// output:
```

```
// List of elements:
```

```
// 42 27 46 72 76 65 91 8 95 67
```

```
// Smallest: 8
```

```
// Greatest: 95
```