

# Array Algorithms

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Java

# Array Algorithms

## Examples of array algorithms

- 1) find the minimum value in a an int array
- 2) find the max
- 3) add the all the elements in the array together
- 4) find the average value of an array of ints

# Array Algorithms: find the minimum

5

3

9

7

6

9

6

what is the **minimum**?

# find the minimum

5

3

9

7

6

9

6

11

41

7

32

22

19

9

8

How about now?

# find the minimum

24

7

18

44

24

9

1

13

49

33

29

14

5

15

34

How about now?

# find the minimum

Now the code...

```
int[] num = new int[10];  
int min = 1000;  
int c = 0;  
while(c < num.length)  
{  
    num[c] = Canvas.rand(100);  
    System.out.print(num[c] + " ");  
    c = c + 1;  
}
```

# find the minimum

Now the code continued

```
c = 0;  
System.out.println();  
while(c < num.length)  
{  
    if(num[c] < min)  
    {  
        min = num[c];  
    }  
    c = c + 1;  
}  
System.out.println(min);
```

# Lab

- Create an array of random integers
  - Array size is between 51 and 200
  - All values between 1 and 100
- Find the minimum
- Find the maximum
- Find the average
- Print out how many elements and all of the above