

Exercise – Math Methods

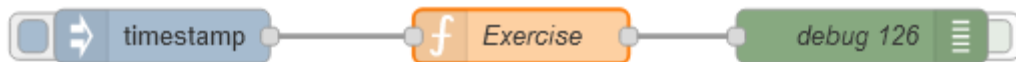
Analyzing and Processing Number Data

Given an array of positive numbers, perform various mathematical operations to analyze and process the data.

```
let numbers = [2.5, 3.8, 5, 7.3, 1.2, 4.8];
```

- Determine the largest and smallest numbers in the array.
- Create a new array containing the square roots of each number, rounded to max. two decimal places.
- Calculate the average (mean) of the numbers, then round it to the nearest whole number.
- Create a new array where each number's decimal points are truncated.

Solution



Inside function node:

```
let numbers = [2.5, 3.8, 5, 7.3, 1.2, 4.8];
```

```
//Square root
```

```
var arr1 = numbers.map(x => Math.sqrt(x));
```

```
//Mean
```

```
var sum = 0;
```

```
for (var i = 0; i < numbers.length; i++) {
```

```
    sum += numbers[i];
```

```
}
```

```
var avg = Math.round(sum / numbers.length);
```

```
//Decimal point truncated
```

```
var arr2 = numbers.map(x => Math.trunc(x));
```

```
msg.payload =
```

```
{  
  "Largest number" : Math.max(...numbers),  
  "Smallest number" : Math.min(...numbers),  
  "Square root" : arr1,  
  "Average value": avg,  
  "Truncated": arr2  
}  
return msg;
```