Assignment

1. Array Squared

Input

```javascript
const input = [1, 2, 3, 4, 5];
```

Result

```javascript
[1, 4, 9, 16, 25];
```

2. Sum of every positive element

Input

```javascript
const input = [1, -4, 12, 0, -3, 29, -150];
```

Result

```javascript
42;
```

3. Calculate median and mean

Input

```javascript
const input = [12, 46, 32, 64];
```

Result

```javascript
{ mean: 38.5, median: 39 }
```

4. Get name initials

Input

```javascript
const input = "George Raymond Richard Martin";
```

Result

```javascript
"GRRM";
```

5. Age difference from the youngest and oldest

Input

```javascript
const input = [
{    name: "John",    age: 13,  },
{    name: "Mark",    age: 56,  },
{    name: "Rachel",    age: 45,  },
{    name: "Nate",    age: 67,  },
{    name: "Jennifer",    age: 65,  },];
```

Result

```javascript
[13, 67, 54];
```

6. Numeronyms

Input

```
const input = "Every developer likes to mix kubernetes and javascript";
```

Result

```
"E3y d7r l3s to mix k8s and j8t";
```

7. n! with Map and Reduce

Input

```
const input = 6;
```

Result

```
720;
```

8. High performing students

Input

```
const students = [  { name: "Alice", scores: [90, 85, 92] },  { name:
"Bob", scores: [75, 80, 85] },  { name: "Charlie", scores: [90, 95,
85] },  { name: "Jack", scores: [100, 100, 100] }];
```

Result

```
[   { name: 'Jack', average: 100 }]
```

9. High Priced Product Categories

Input

```
const products = [
{ name: "Product 1", price: 20, category: "Electronics" },
{ name: "Product 2", price: 30, category: "Clothes" },
{ name: "Product 3", price: 40, category: "Electronics" },
{ name: "Product 4", price: 50, category: "Clothes" },
{ name: "Product 5", price: 60, category: "Clothes" },
{ name: "Product 6", price: 70, category: "Electronics" },
{ name: "Product 7", price: 80, category: "Clothes" },
{ name: "Product 8", price: 90, category: "Electronics" },];
```

Result

```
[   { category: 'Clothes', average: 55 },  { category: 'Electronics',
average: 55 }]
```