Array Methods

1. Concatenate the two arrays

```
const arr1 = [1, 2, 3, 4];
const arr2 = [5, 6, 7, 8, 9];

const arr3; // [1, 2, 3, 4, 5, 6, 7, 8, 9]
```

2. Convert a long phrase to its acronym.

Input	Output
'Prisoner of War'	'POW'
'Have a good night'	'HAGN'

3. Given a word, compute the scrabble score for the given word. To calculate scrabble score use the following table of scores:

Letters	***Value***
a, e, i, o, u, l, n, r, s, t	1
d, g	2
b, c, m, p	3
f, h, v, w, y	4
k	5
j, x	6
q, z	7

Hint: to save this data use an array, where indices are scores and each element is the sequence of appropriate characters(['aeioulnrst', ...]).

4. Write a function which returns array of usernames.

```
const users = [
  {
    username: "Yuri Gagarin",
    lang: "ru",
  },
  {
    username: "Nil Armstrong",
    lang: "ENG",
  },
```

```
];

getUserNames(users); // ['Yuri Gagarin', 'Nil Armstrong']
```

5. Write a function which returns array of lengths of user names

```
const users = [
  {
    username: "Yuri Gagarin",
    lang: "ru",
  },
  {
    username: "Nil Armstrong",
    lang: "ENG",
  },
];
getUsernameLengths(users); // [12, 13]
```

6. Write a function which parses string integers. If it's not possible to parse, then add null

```
arseInteger(["1", "2", "34"]); // [1, 2, 34];
parseInteger(["1", "px", "2323"]); // [1, null, 2323];
```

7. Given an array, return a new array that only includes the numbers.

```
const arr = [1, 2, "a", true, {}, undefined, 55, false, "hi", null, 166,
NaN];
// [1, 2, 55, 166]
```

8. Write a function which remove users with language equals to 'ru'.

```
const users = [
  {
    username: "Yuri Gagarin",
    lang: "ru",
  },
  {
    username: "Nil Armstrong",
    lang: "ENG",
  },
];
filterUsers(users); // [{ username: "Nil Armstrong, lang: "ENG" }]
```

9. Write a function which filters object by field.

```
const users = [
  {
    username: "Yuri Gagarin",
    lang: "ru",
    isAstronaut: true,
  },
  {
    username: "Nil Armstrong",
    lang: "ENG",
    isAstronaut: true,
  },
  {
    username: "Elon Musk",
    isAstronaut: false,
  },
];
filterByField(users, "isAstronaut"); // [{ username: "Yuri Gagarin", lang:
"ru", isAstronaut: true, }, { username: "Nil Armstrong, lang: "ENG" }]
```

10. Given an array, return the sum of numbers that are 18 or over.

```
const arr = [1, 22, 55, 166, 5, 36, 11, 205, 333, 95, 62, 10, 43];
// 22 + 55 + 166 + 366 + 205 + 333 + 95 + 62 + 43 = 1347
```

11. Write a function which calculates average age of users.

```
const users = [
  {
    username: "Yuri Gagarin",
    lang: "ru",
    age: 56,
  },
  {
    username: "Nil Armstrong",
    lang: "ENG",
    age: 54,
  },
];
getAverageAge(users); // 55
```

12. Create a function that takes an array of numbers arr, a string str and return an array of numbers as per the following rules:

```
- "Asc" returns a sorted array in ascending order.
- "Desc" returns a sorted array in descending order.
```

```
sortBy([4, 3, 2, 1], "Asc"); // [1, 2, 3, 4]
sortBy([7, 8, 11, 66]); // [7, 8, 11, 66]
sortBy([7, 8, 11, 66], "Desc"); // [66, 11, 8, 7]
```

13. Implement these array methods

- unshift
- shift
- pop
- push
- forEach
- findIndex
- find
- every
- some
- map
- filter
- reduce
- slice
- splice
- flat