

FILTER

```
example.js
var animals = [
  { name: 'Fluffykins', species: 'rabbit' },
  { name: 'Caro', species: 'dog' },
  { name: 'Hamilton', species: 'dog' },
  { name: 'Harold', species: 'fish' },
  { name: 'Ursula', species: 'cat' },
  { name: 'Jimmy', species: 'fish' }
]

var isDog = function(animal) {
  return animal.species === 'dog'
}
```

```
var dogs = animals.filter(isDog)
var otherAnimals = animals.reject(isDog)
```

```
/*
var dogs = []
for (var i = 0; i < animals.length; i++) {
  if (animals[i].species === 'dog')
    dogs.push(animals[i])
}
```

Think and reason and solve these problems

MAP

```
example1.js
1 var animals = [
2   { name: 'Fluffykins', species: 'rabbit' },
3   { name: 'Caro', species: 'dog' },
4   { name: 'Hamilton', species: 'dog' },
5   { name: 'Harold', species: 'fish' },
6   { name: 'Ursula', species: 'cat' },
7   { name: 'Jimmy', species: 'fish' }
8 ]
9
10 var names = animals.map(function(animal) { return animal.name })
11 var names = animals.map((animal) => animal.name )
12
13 var names = []; for (var i = 0; i < animals.length; i++) { names.push(animals[i].name) }
14
15 console.log(names)
16
```



REDUCE

```
stuff.js
1 var orders = [
2   { amount: 250 },
3   { amount: 400 },
4   { amount: 100 },
5   { amount: 325 }
6 ]
7
8 var totalAmount = orders.reduce((sum, order) => sum + order.amount, 0)
9
10 var totalAmount = 0
11 for (var i = 0; i < orders.length; i++) {
12   totalAmount += orders[i].amount
13 }
14
15 console.log(totalAmount)
16
```