```
1.
const birthday = new Date('August 19, 2000');
const day1 = birthday.getDay();
// Sunday - Saturday : 0 - 6

console.log(day1);




2.
const arr = [45, 2, 13, 5, 14, 1, 20];
const squareAndRootSum = (arr = []) => {

    const res = arr.map(el => {

        if(el % 2 === 0){
            return el * el;
        }else{
            return Math.sqrt(el);
        };
    });
    const sum = res.reduce((acc, val) => acc + val);
    return sum;
};
console.log(squareAndRootSum(arr));




3.
function test_prime(n)
{

  if (n===1)
  {
    return false;
  }
  else if(n === 2)
  {
    return true;
  }else
  {
    for(var x = 2; x < n; x++)
```

```
      {
        if(n % x === 0)
        {
          return false;
        }
      }
      return true;
    }
}

console.log(test_prime(37));
```

4.

```
function myFunction() {
  window.open("https://www.example.com", "_blank",
"toolbar=yes,scrollbars=yes,resizable=yes,top=500,left=500,width=800,heigh
t=600");
}
```

5.
```
document.getElementById("demo").innerHTML =
navigator.userAgent;
```

6.
```
function getLocation() {
  if (navigator.geolocation) {
    navigator.geolocation.getCurrentPosition(showPosition);
  } else {
    x.innerHTML = "Geolocation is not supported by this browser.";
  }
```

```
}

function showPosition(position) {
  x.innerHTML = "Latitude: " + position.coords.latitude +
  "<br>Longitude: " + position.coords.longitude;
}
```

7.
a.
```
document.onclick = myClickHandler;


function myClickHandler() {
  alert("All orders require minimum two weeks notice due to the nature of
event and   wedding products");
}
```

b.
```
function doCheck() {
        var keyCode = (event.which) ? event.which : event.keyCode;
        if ((keyCode == 8) || (keyCode == 46) || (keyCode == 32))
            alert('The column is readonly and is non-editable');
        event.returnValue = false;
    }
```

c.
```
let deomImage = document.getElementById("demo");
      deomImage.addEventListener( "mouseover", function () {
          document.demo.style = "height:200px; width:200px";
```

8.

```
var btn = document.getElementById("mybtn");
btn.value = 'my value'; // will just add a hidden value
btn.innerHTML = 'my text';
```

9.
```
<form action="example/submit.html">
  Name: <input type="text" name="name"><br>
  Email: <input type="text" name="email"><br>
  Password: <input type="password" name="password"><br>
  Confirm_Password: <input type="password" name="confirmpassword"><br>
  <button type="submit">Log in</button>
</form>
<script>
  var form = document.querySelector("form");
  console.log(form.elements[1].type);

  console.log(form.elements.password.type);

  console.log(form.elements.name.form == form);

</script>
```

10.
```
<button onclick="myFunction()">Try it</button>

<div id="myDIV">
highlight.
</div>

<script>
function myFunction() {
    var element = document.getElementById("myDIV");
```

```
        element.classList.add("mystyle");
}
</script>
```

11.
```
<ul id="userprofile">
    </ul>

    <script>
        function createMenuItem(name) {
            let li = document.createElement('li');
            li.textContent = name;
            return li;
        }

        const userprofile = document.querySelector('#userprofile');

        userprofile.appendChild(createMenuItem('Profile'));
        userprofile.appendChild(createMenuItem('Settings'));
        userprofile.appendChild(createMenuItem('Log out'));
```

12.
```
<button type="button" id="mybtn">Click here</button>
    <script>
            var btn = document.getElementById("myBtn");
            btn.setAttribute("class", "click-btn");
            btn.setAttribute("enable", " ");
    </script>
```

13.
```
<p class="my-paragraph" > Welcome to freeCodeCamp! </p>
<p id="my-paragraph" > Welcome to freeCodeCamp! </p>

// CSS
.my-paragraph {
    color: skyblue;
}

#my-paragraph {
    color: skyblue;
}
```

14
```
<script src="https://api.example.com/data"></script>
<script>
$(document).ready(function(){
  $("button").click(function(){
    $.get("demo_test.asp", function(data, status){
      alert("Data: " + data + "\nStatus: " + status);
    });
  });
});
</script>
</head>
<body>

<button>click</button>
```

15.

```html
<script src="https://api.example.com/submit"></script>
<script>
$(document).ready(function(){
  $("button").click(function(){
    $.post("demo_test_post.asp",
    {
      name: "john",
      email: "john@gmail.com"
    },
    function(data,status){
      alert("Data: " + data + "\nStatus: " + email);
    });
  });
});
</script>
</head>
<body>

<button>click</button>

</body>
```