1)Math equation

```
<!DOCTYPE html>
<html lang="en">
 <title>Bootstrap Example</title>
 <meta charset="utf-8">
 <meta name="viewport" content="width=device-width, initial-scale=1">
 </head>
 <style>
   body{
       margin:auto;
       text-align:center;
       font-size:100px;
       padding:100px;
 </style>
<body>
        <box>&#8706;<sup>2</sup>u/<over>dt</box><sup>2</sup> = c<sup>2</sup>
           ∂<sup>2</sup>u/<box>&#8706;x<sup>2</sup><over></box>
   </body>
</html>
```

2) Write a css rule of rounded rectangle, dashed border, grayscale for all image tags in your webpage.

```
img {
  filter: grayscale(100%);
  border: dashed;
  border-width: 2px 4px;
  border-radius: 40px;
}
```

3) Write a css rule of rounded rectangle, dashed border, grayscale for all image tags in your webpage.

```
@media only screen and (max-width: 600px) {
   body {
    font-size: 12px;
   }
}
```

```
4) Use HTML & CSS to display different types of cursors.
<!DOCTYPE html>
<html>
<head>
<style>
.alias {cursor: alias;}
.all-scroll {cursor: all-scroll;}
.auto {cursor: auto;}
.cell {cursor: cell;}
.context-menu {cursor: context-menu;}
.col-resize {cursor: col-resize;}
.copy {cursor: copy;}
.crosshair {cursor: crosshair;}
.default {cursor: default;}
.e-resize {cursor: e-resize;}
.ew-resize {cursor: ew-resize;}
.grab {cursor: -webkit-grab; cursor: grab;}
.grabbing {cursor: -webkit-grabbing; cursor: grabbing;}
.help {cursor: help;}
.move {cursor: move;}
.n-resize {cursor: n-resize;}
.ne-resize {cursor: ne-resize;}
.nesw-resize {cursor: nesw-resize;}
.ns-resize {cursor: ns-resize;}
.nw-resize {cursor: nw-resize;}
.nwse-resize {cursor: nwse-resize;}
.no-drop {cursor: no-drop;}
```

```
.none {cursor: none;}
.not-allowed {cursor: not-allowed;}
.pointer {cursor: pointer;}
.progress {cursor: progress;}
.row-resize {cursor: row-resize;}
.s-resize {cursor: s-resize;}
.se-resize {cursor: se-resize;}
.sw-resize {cursor: sw-resize;}
.text {cursor: text;}
.url {cursor: url(myBall.cur),auto;}
.w-resize {cursor: w-resize;}
.wait {cursor: wait;}
.zoom-in {cursor: zoom-in;}
.zoom-out {cursor: zoom-out;}
</style>
</head>
<body>
<h1>The cursor Property</h1>
Mouse over the words to change the mouse cursor.
alias
all-scroll
auto
cell
context-menu
col-resize
```

- copy
- crosshair
- default
- e-resize
- ew-resize
- grab
- grabbing
- help
- move
- n-resize
- ne-resize
- nesw-resize
- ns-resize
- nw-resize
- nwse-resize
- no-drop
- none
- not-allowed
- pointer
- progress
- row-resize
- s-resize
- se-resize
- sw-resize
- text
- url
- w-resize

```
wait
zoom-in
zoom-out
</body>
</html>
```

5) Write a CSS class that meets the **Box Model** requirement for all the div tags in your page.

```
p {
  width: 300px;
  border: 5px solid green;
  padding: 50px;
  margin: 10px;
}
```

6) Write a CSS class to change size of font, color font family when mouse moves over of span tag in your webpage.

```
span:hover {
  background-color: yellow;
  font-size:10px;
  font-family:monospace;
}
```

7) Write a CSS 2D rule with translate() property to move an element.

```
div {
  width: 300px;
  height: 100px;
  border: 1px solid black;
  -ms-transform: translate(50px,100px); /* IE 9 */
transform: translate(50px,100px); /* Standard syntax */
}
```

8) Define a CSS class to show tooltip when mouse moved over the elements.

```
<!DOCTYPE html>
<html>
<style>
.tooltip {
   position: relative;
```

```
display: inline-block;
  border-bottom: 1px dotted black;
.tooltip .tooltiptext {
  visibility: hidden;
 width: 120px;
 background-color: black;
  color: #fff;
  text-align: center;
  border-radius: 6px;
  padding: 5px 0;
  position: absolute;
  z-index: 1;
  top: -5px;
  left: 105%;
.tooltip:hover .tooltiptext {
  visibility: visible;
</style>
<body style="text-align:center;">
<h2>Right Tooltip</h2>
Move the mouse over the text below:
<div class="tooltip">Hover over me
 <span class="tooltiptext">Tooltip text</span>
</div>
</body>
</html>
```

9) For the below shown image apply clip property with values of right & bottom and display the output.

```
<!DOCTYPE html>
<html>
<head>
<style>
img {
  position: absolute;
  clip: rect(0px,80px,200px,0px);
}
</style>
```

10) Design the below image using HTML & CSS.

```
<!DOCTYPE html>
<html>
<style>
p{
    width:30%;
    font-family:verdana;
    font-size:30px;
span {
 float: left;
  width: 0.7em;
  font-size: 400%;
  font-family: algerian, courier;
  line-height: 100%;
.container {
 position: relative;
  font-family: Arial;
  margin:auto;
  text-align:center;
img{
    height: 500px;
    width:500px;
.text-block {
  position: absolute;
  top: 30%;
 right: 34%;
```

```
margin:auto;
 color: white;
 padding-left: 20px;
 padding-right: 20px;
</style>
</head>
<body>
<h2>Image Text Blocks</h2>
<div class="container">
 <img src="photo.webp" alt="Nature">
 <span>D</span>rop caps can be used to add emphasis to blocks of text but k
now they can affect reeadability.
</div>
</body>
</html>
```

11) Use the required property to reshape a div, as example shown below.

```
<!DOCTYPE html>
<html>
<head>
<style>

div{
    background-color:red;
    border-radius: 50px 1px;
    color:white;
}
</style>
</head>
<body>

<div style='border: 1px solid red; height:200px; width:50%; margin:auto; textalign:center; padding:20px'>
    Aniruthan S
</div>
</body>
```

12) Use CSS to set a background image should be centered and should not repeat.

```
body {
  background-image: url('photo.webp');
  background-repeat: no-repeat;
  background-attachment: fixed;
  background-size: cover;}
```

13) Write CSS rules to set the direction of the flexible items inside the <div></div> element in reverse order.

```
<!DOCTYPE html>
<html>
<head>
<stvle>
#main {
 width: 400px;
 height: 400px;
 border: 1px solid #c3c3c3;
 display: flex;
 flex-direction: row-reverse;
#main div {
 width: 50px;
 height: 50px;
</style>
</head>
<body>
<h1>The flex-direction Property</h1>
<div id="main">
 <div style="background-color:coral;">A</div>
 <div style="background-color:lightblue;">B</div>
 <div style="background-color:khaki;">C</div>
 <div style="background-color:pink;">D</div>
 <div style="background-color:lightgrey;">E</div>
 <div style="background-color:lightgreen;">F</div>
</div>
<b>Note:</b> Internet Explorer 10 and earlier versions do not support the f
lex-direction property.
</body>
</html>
```

14) Give the <div> element an image border using the image "border.png". Slice the image at 30px and stretch it.

```
<!DOCTYPE html>
<html>
<style>
#borderimg1 {
 border: 10px solid transparent;
 padding: 15px;
 border-image: url(photo.webp) round;
 border-image-slice: 10%;
#borderimg2 {
 border: 10px solid transparent;
 padding: 15px;
 border-image: url(photo.webp) round;
 border-image-slice: 20%;
#borderimg3 {
 border: 10px solid transparent;
 padding: 15px;
 border-image: url(photo.webp) round;
 border-image-slice: 30%;
</style>
</head>
<body>
<h1>The border-image-slice Property</h1>
border-image-slice: 10%;
border-image-slice: 20%;
border-image-slice: 30%;
Here is the image used:
<img src="photo.webp" style="height:50px; width:50px">
<strong>Note:</strong> Internet Explorer 10, and earlier versions, do not s
upport the border-image-slice property.
</body>
</html>
```

15) Give the <div> element a rounded corner (25px radius) on the bottom left side.

```
<!DOCTYPE html>
<html>
<head>
<style>

div{
    background-color:red;
    border-radius: 0 0 0 25px;
    color:white;
}
</style>
</head>
<body>

<div style='border: 1px solid red; height:200px; width:50%; margin:auto; textalign:center; padding:20px'>
    Aniruthan S
</div>

</body>
</bod>
</br/>

***

**
```

16) Remove the transparency/opacity of the element when the user hovers over it with the mouse pointer.

```
img {
    opacity:0.5;
}
img:hover {
    opacity:1;
}
```

17) Position the <div> element all the way to the right using absolute positioning.

```
<!DOCTYPE html>
<html>
<head>
<style>
.container{
    position:relative;
}

p{
    position: absolute;
    right:2px;
    width:40%;
}
```

```
</head>
</head>
<body>
<div class='container'>
<h1>The position Property</h1>
<h2>This is a heading with an absolute position</h2>
With absolute positioning, an element can be placed anywhere on a page. The heading below is placed 100px from the left of the page and 150px from the to p of the page.
</div>
</div>
</div>
</body>
</html>
```

18) Add a scrollbar to the <div> element.

```
p{
  background-color: lightblue;
  width: 500px;
  height: 100px;
  overflow: scroll;
  text-align:center;
  margin:auto;
}
```

19) Set a linear gradient background for the <div> element, going from the top to bottom, transitioning from "white" to "red" to "blue" to "green".

```
<!DOCTYPE html>
<html>
<head>
<style>

P{

width:50%;
height:50%;
text-align:center;
margin:auto;
text-align:justify;
background-color: red; /* For browsers that do not support gradients */
background-image: linear-gradient(white, red, blue, green);

}
</style>
```

```
</head>
<body>
<div class='container'>
<h1>The position Property</h1>
<h2>This is a heading with an absolute position</h2>
With absolute positioning, an element can be placed anywhere on a page. The
 heading below is placed 100px from the left of the page and 150px from the to
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op of the page.
   With absolute positioning, an element can be placed anywhere on a page. Th
e heading below is placed 100px from the left of the page and 150px from the t
op of the page.
</div>
</body>
</html>
```

20) With the transform property, rotate the <div> element 45 degrees.

```
<!DOCTYPE html>
<html>
<head>
<style>
p{
  width:50%;
  height:50%;
  text-align:center;
  margin:auto;
  text-align:justify;
  background-color: red; /* For browsers that do not support gradients */
  background-image: linear-gradient(white, red, blue, green);
  -ms-transform: rotate(20deg); /* IE 9 */
  transform: rotate(20deg);
</style>
</head>
<body>
<div class='container'>
<h1>The position Property</h1>
```

```
<h2>This is a heading with an absolute position</h2>
```

With absolute positioning, an element can be placed anywhere on a page. The heading below is placed 100px from the left of the page and 150px from the to p of the page.

With absolute positioning, an element can be placed anywhere on a page. The heading below is placed 100px from the left of the page and 150px from the top of the page.

With absolute positioning, an element can be placed anywhere on a page. The heading below is placed 100px from the left of the page and 150px from the top of the page.

With absolute positioning, an element can be placed anywhere on a page. The heading below is placed 100px from the left of the page and 150px from the top of the page.

```
</div>
</body>
</html>
```