

Mathematics Game

SOURCE CODE

```
<!--index.html-->
<!DOCTYPE html>
<html lang="en">
  <head>
    <title>Maths Game</title>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width,
initial-scale=1, user-scalable=yes">
    <link rel="stylesheet" href="styling.css">
  </head>

  <body>
    <div id="container">
      <div id="score">
        Score: <span id="scorevalue">0</span>
      </div>
      <div id="correct">
        Correct
      </div>
      <div id="wrong">
        Try again
      </div>
      <div id="question">

    </div>
    <div id="instruction">
```

```
        Click on the correct answer
    </div>
    <div id="choices">
        <div id="box1" class="box"></div>
        <div id="box2" class="box"></div>
        <div id="box3" class="box"></div>
        <div id="box4" class="box"></div>
    </div>
    <div id="startreset">
        Start Game
    </div>
    <div id="timerremaining">
        Time remaining: <span
id="timerremainingvalue">60</span> sec
    </div>
    <div id="gameOver">

    </div>
</div>
<script src="javascript.js"></script>
</body>
</html>
```

```
/*styling.css*/
html{
    height: 100%;
    background: radial-gradient(circle, #fff, #ccc);
    background: -webkit-radial-gradient(circle, #fff,
#ccc);
    background: -o-radial-gradient(circle, #fff, #ccc);
    background: -moz-radial-gradient(circle, #fff, #ccc);
}

#container{
    height: 400px;
    width: 550px;
    background-color: #9DD2EA;
    margin: 100px auto;
    padding: 20px;
    border-radius: 10px;
```

```
    box-shadow: 0px 4px 0px 0px #009de4;
    -moz-box-shadow: 0px 4px 0px 0px #009de4;
    -webkit-box-shadow: 0px 4px 0px 0px #009de4;
    /*      box-shadow: [horizontal offset] [vertical
offset] [blur radius] [optional spread radius] [color]*/
    position: relative;
}

#score{
    background-color: #F1FF92;
    color: #888E5F;
    padding: 11px;
    position: absolute;
    left: 500px;
    box-shadow: 0px 4px 0px #9da853;
    -moz-box-shadow: 0px 4px 0px #9da853;
    -webkit-box-shadow: 0px 4px 0px #9da853;
}

#correct{
    position: absolute;
    left: 260px;
    background-color: #42e252;
    color: white;
    padding: 11px;
    display: none;
}

#wrong{
    position: absolute;
    left: 250px;
    background-color: #de401a;
    color: white;
    padding: 11px;
    display: none;
}

#question{
    width: 450px;
    height: 150px;
    margin: 50px auto 10px auto;
    background-color: #9DA0EA;
```

```
    box-shadow: 0px 4px #535aa8;
    -moz-box-shadow: 0px 4px #535aa8;
    -webkit-box-shadow: 0px 4px #535aa8;
    font-size: 100px;
    text-align: center;
    font-family: cursive, sans-serif;
    color: black;
}

#instruction{
    width: 450px;
    height: 50px;
    background-color: #B481D9;
    margin: 10px auto;
    text-align: center;
    line-height: 45px;
    box-shadow: 0px 4px #8153a8;
    -moz-box-shadow: 0px 4px #8153a8;
    -webkit-box-shadow: 0px 4px #8153a8;
}

#choices{
    width: 450px;
    height: 100px;
    margin: 5px auto;
}

.box{
    width: 85px;
    height: 85px;
    background-color: white;
    float: left;
    margin-right: 36px;
    border-radius: 3px;
    cursor: pointer;
    box-shadow: 0px 4px rgba(0, 0, 0, 0.2);
    -moz-box-shadow: 0px 4px rgba(0, 0, 0, 0.2);
    -webkit-box-shadow: 0px 4px rgba(0, 0, 0, 0.2);
    text-align: center;
    line-height: 80px;
    position: relative;
    transition: all 0.2s;
```

```
-webkit-transition: all 0.2s;
-moz-transition: all 0.2s;
-o-transition: all 0.2s;
-ms-transition: all 0.2s;
}

.box:hover, #startreset:hover{
/*    background-color: #9C89F6;*/
/*    color: white;*/
/*    box-shadow: 0px 4px #6b54d3;*/
/*    -moz-box-shadow: 0px 4px #6b54d3;*/
/*    -webkit-box-shadow: 0px 4px #6b54d3;*/
}

.box:active, #startreset:active{
    background-color: #9C89F6;
    color: white;
    box-shadow: 0px 0px #6b54d3;
    -moz-box-shadow: 0px 0px #6b54d3;
    -webkit-box-shadow: 0px 0px #6b54d3;
    top: 4px;
}
#box4{
    margin-right: 0;
}

#startreset{
    width: 78px;
    padding: 10px;
    background-color: rgba(255,255,255,0.5);
    margin: 0 auto;
    border-radius: 3px;
    cursor: pointer;
    box-shadow: 0px 4px rgba(0, 0, 0, 0.2);
    -moz-box-shadow: 0px 4px rgba(0, 0, 0, 0.2);
    -webkit-box-shadow: 0px 4px rgba(0, 0, 0, 0.2);
    text-align: center;
    position: relative;
    transition: all 0.2s;
    -webkit-transition: all 0.2s;
    -moz-transition: all 0.2s;
    -o-transition: all 0.2s;
```

```
-ms-transition: all 0.2s;
}

#timerremaining{
  width: 152px;
  padding: 10px;
  position: absolute;
  top: 395px;
  left: 400px;
  background-color: rgba(181, 235, 36, 0.8);
  border-radius: 3px;
  box-shadow: 0px 4px rgba(0, 0, 0, 0.2);
  -moz-box-shadow: 0px 4px rgba(0, 0, 0, 0.2);
  -webkit-box-shadow: 0px 4px rgba(0, 0, 0, 0.2);
  /* visibility: hidden;*/
  display: none;
}

#gameOver{
  height: 200px;
  width: 500px;
  background: linear-gradient(#F3CA6B, #F3706C);
  background: -webkit-linear-gradient(#F3CA6B, #F3706C);
  background: -o-linear-gradient(#F3CA6B, #F3706C);
  background: -moz-linear-gradient(#F3CA6B, #F3706C);
  color: white;
  font-size: 2.5em;
  text-align: center;
  text-transform: uppercase;
  position: absolute;
  top: 100px;
  left: 45px;
  z-index: 2;
  display: none;
}

}
```

```
//javascript.js
var playing = false;
var score;
```

```
var action;
var timerremaining;
var correctAnswer;

//if we click on the start/reset
document.getElementById("startreset").onclick =
function(){

    //if we are playing

    if(playing == true){

        location.reload(); //reload page

    }else{//if we are not playing

        //change mode to playing

        playing = true;

        //set score to 0

        score = 0;
        document.getElementById("scorevalue").innerHTML =
score;

        //show countdown box

        show("timerremaining");
        timerremaining = 60;

document.getElementById("timerremainingvalue").innerHTML =
timerremaining;

        //hide game over box

        hide("gameOver");

        //change button to reset
        document.getElementById("startreset").innerHTML =
"Reset Game";
```

```

        //start countdown

        startCountdown();

        //generate a new Q&A

        generateQA();
    }
}

//Clicking on an answer box

for(i=1; i<5; i++){
    document.getElementById("box"+i).onclick = function(){
        //check if we are playing
        if(playing == true){//yes
            if(this.innerHTML == correctAnswer){
                //correct answer

                //increase score by 1
                score++;

document.getElementById("scorevalue").innerHTML = score;
                //hide wrong box and show correct box
                hide("wrong");
                show("correct");
                setTimeout(function(){
                    hide("correct");
                }, 1000);

                //Generate new Q&A

                generateQA();
            }else{
                //wrong answer
                hide("correct");
                show("wrong");
                setTimeout(function(){
                    hide("wrong");
                }, 1000);
            }
        }
    }
}

```



```

    }
}
}
//if we click on answer box
    //if we are playing
        //correct?
            //yes
                //increase score
                //show correct box for 1sec
                //generate new Q&A
            //no
                //show try again box for 1sec

//functions

//start counter

function startCountdown(){
    action = setInterval(function(){
        timerremaining -= 1;

document.getElementById("timerremainingvalue").innerHTML =
timerremaining;
        if(timerremaining == 0){// game over
            stopCountdown();
            show("gameOver");
            document.getElementById("gameOver").innerHTML =
"<p>Game over!</p><p>Your score is " + score + ".</p>";
            hide("timerremaining");
            hide("correct");
            hide("wrong");
            playing = false;

document.getElementById("startreset").innerHTML = "Start
Game";
        }
    }, 1000);
}

//stop counter

```

```

function stopCountdown(){
    clearInterval(action);
}

//hide an element

function hide(Id){
    document.getElementById(Id).style.display = "none";
}

//show an element

function show(Id){
    document.getElementById(Id).style.display = "block";
}

//generate question and multiple answers

function generateQA(){
    var x = 1+ Math.round(9*Math.random());
    var y = 1+ Math.round(9*Math.random());
    correctAnswer = x*y;
    document.getElementById("question").innerHTML = x +
"x" + y;
    var correctPosition = 1+ Math.round(3*Math.random());

document.getElementById("box"+correctPosition).innerHTML =
correctAnswer; //fill one box with the correct answer

    //fill other boxes with wrong answers

    var answers = [correctAnswer];

    for(i=1; i<5; i++){
        if(i != correctPosition) {
            var wrongAnswer;
            do{
                wrongAnswer = (1+
Math.round(9*Math.random()))*(1+
Math.round(9*Math.random())); //a wrong answer
            }while(answers.indexOf(wrongAnswer)>-1)

```

```
        document.getElementById("box"+i).innerHTML =  
wrongAnswer;  
        answers.push(wrongAnswer);  
    }  
}  
}
```