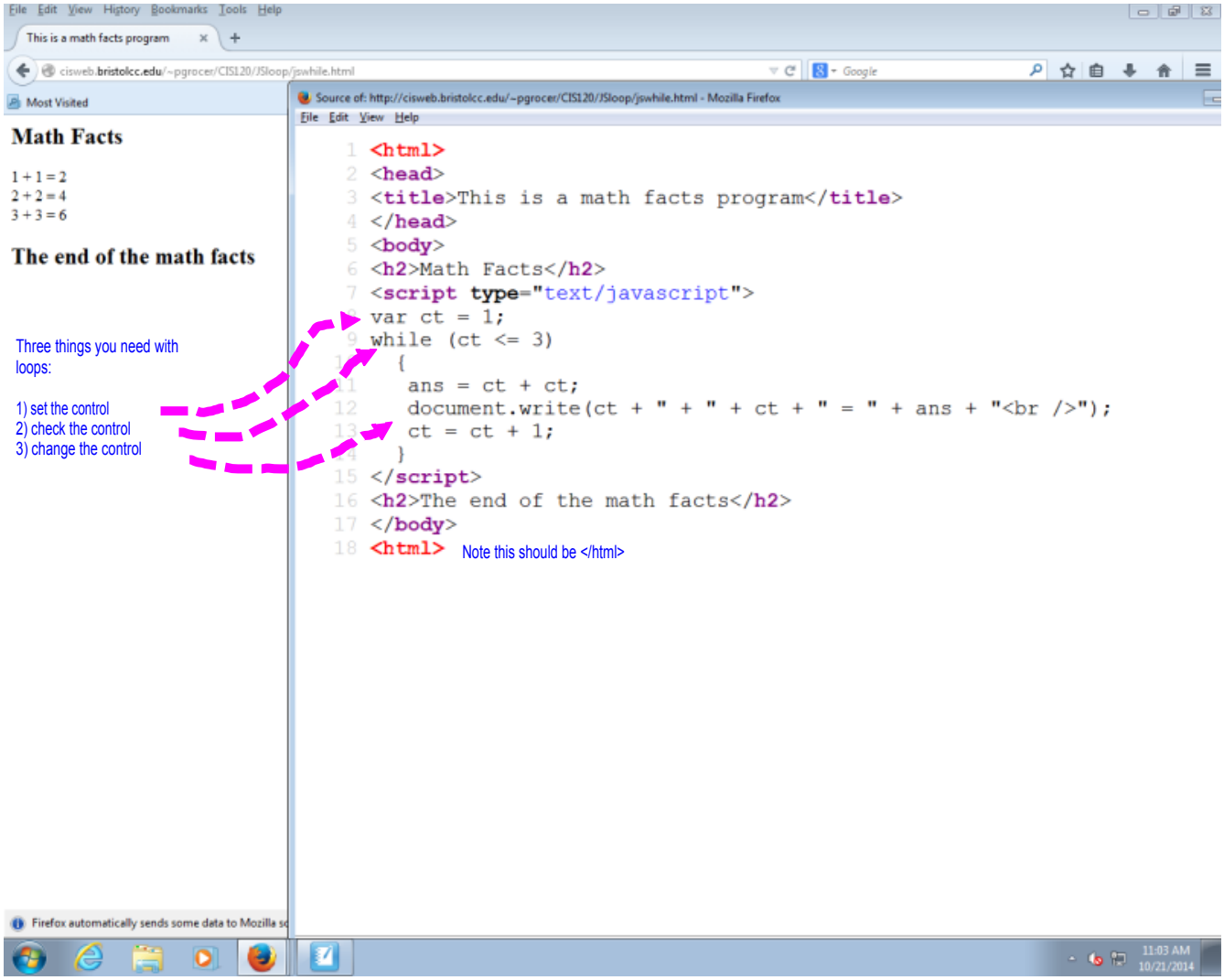
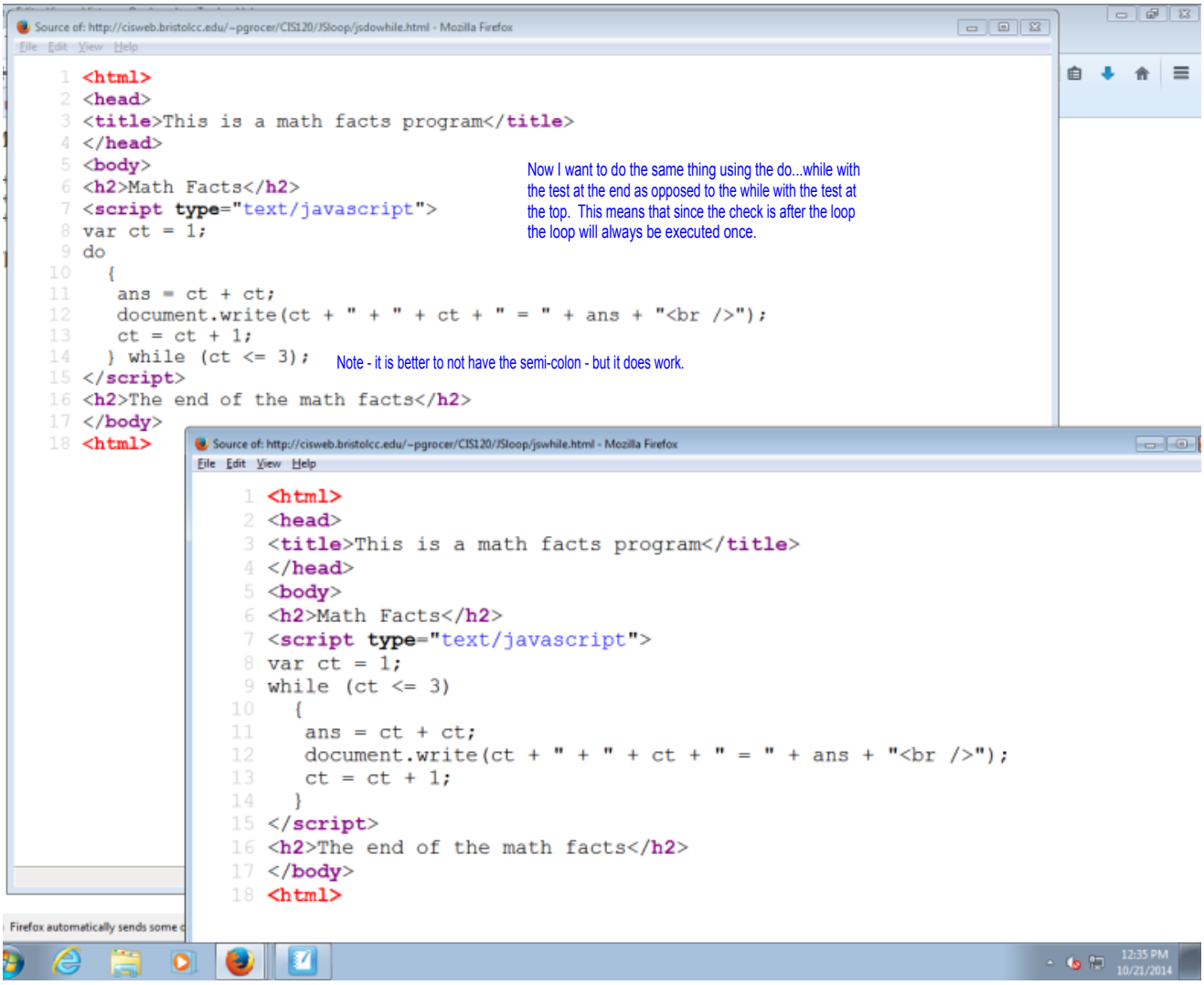
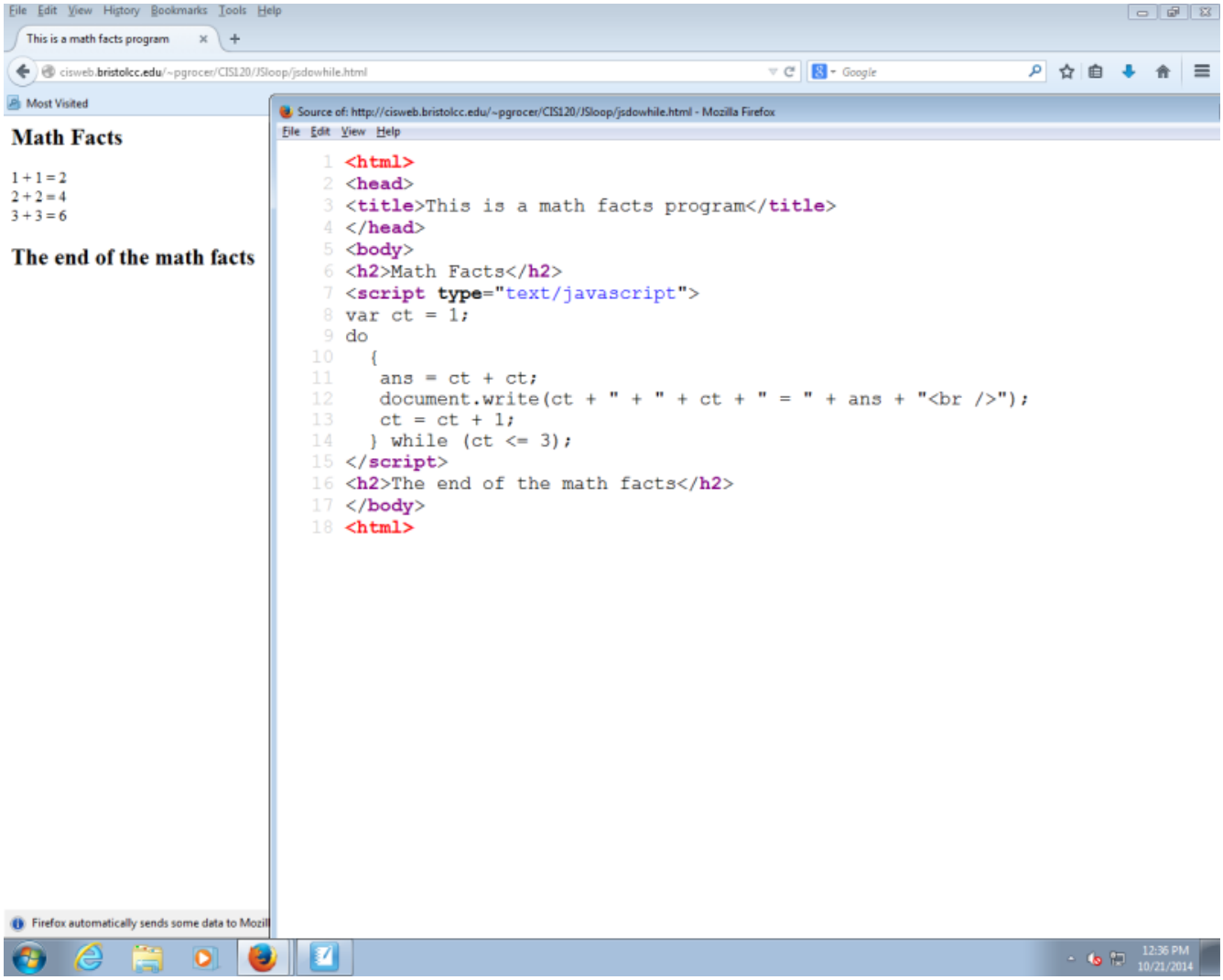
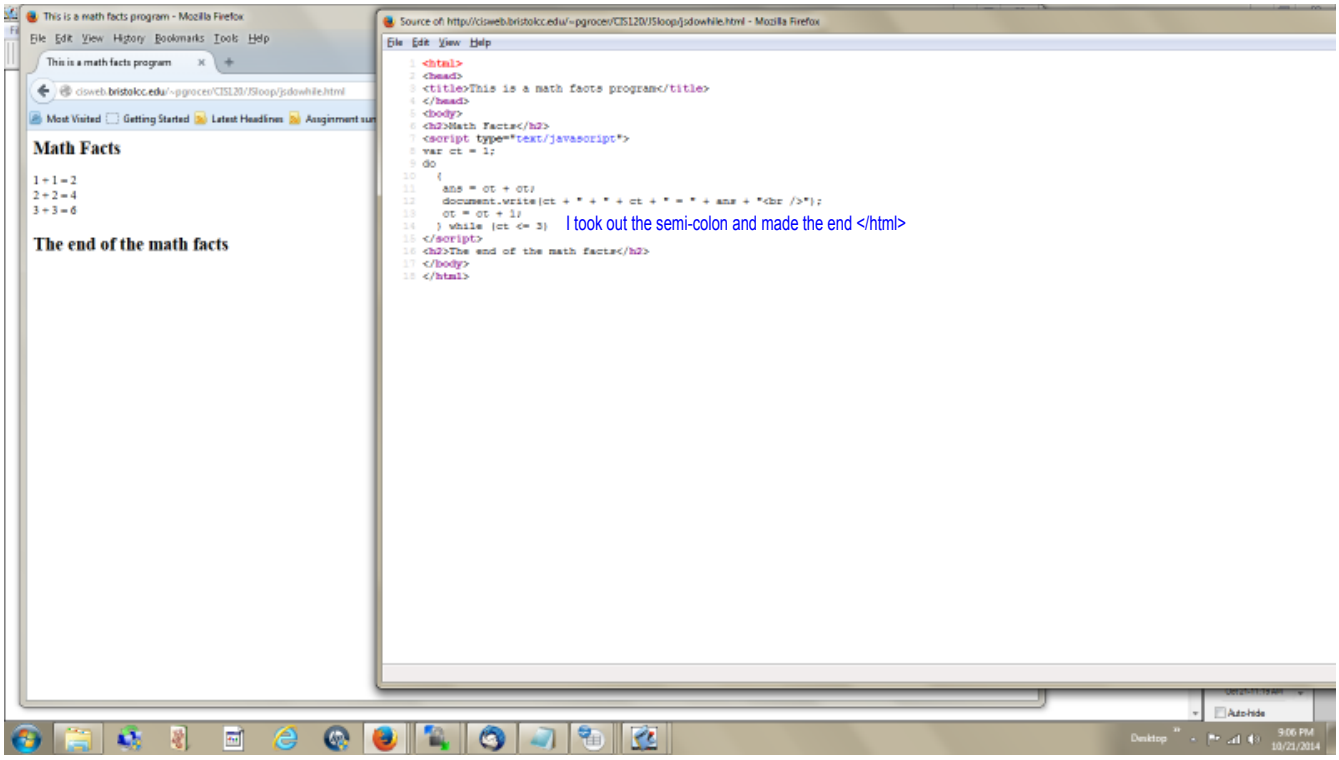
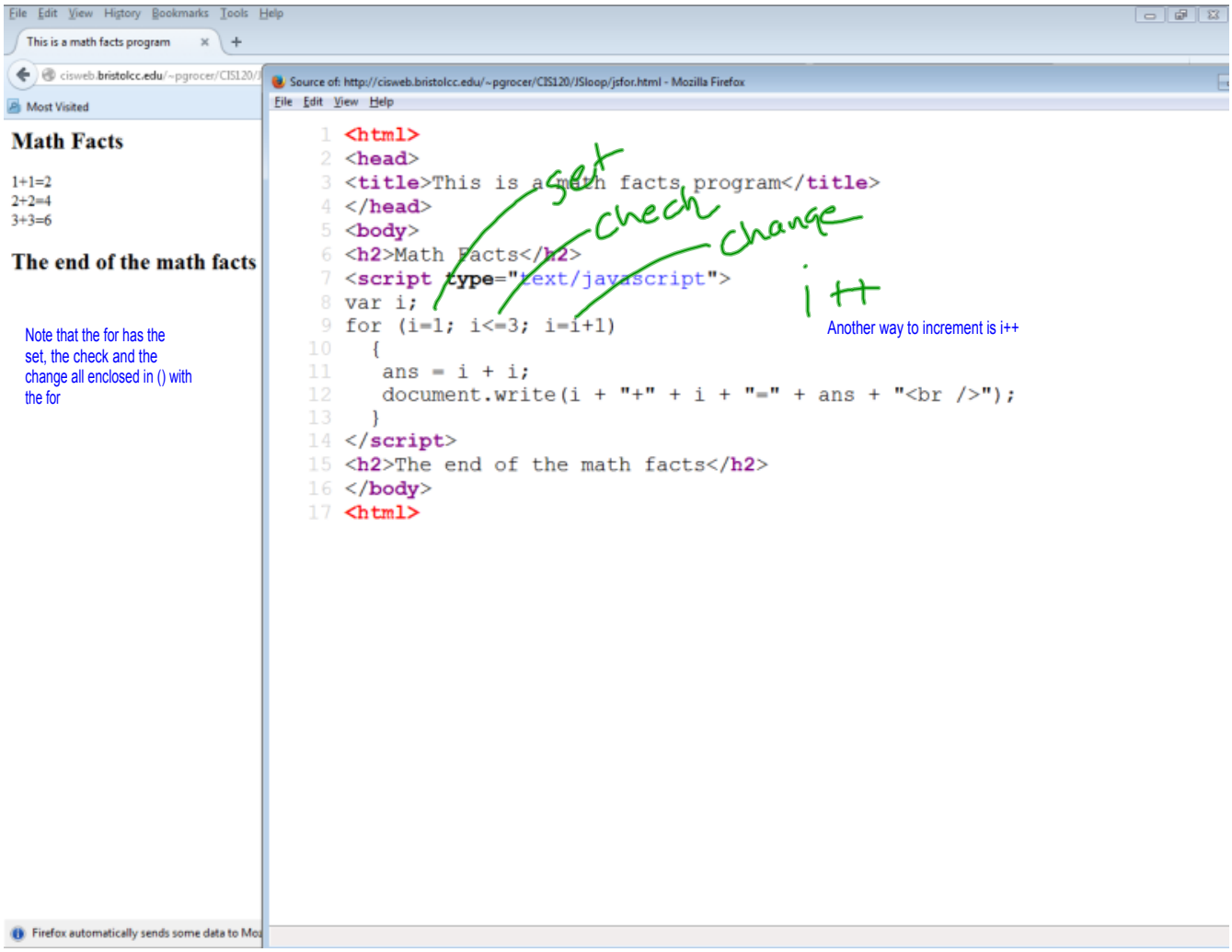
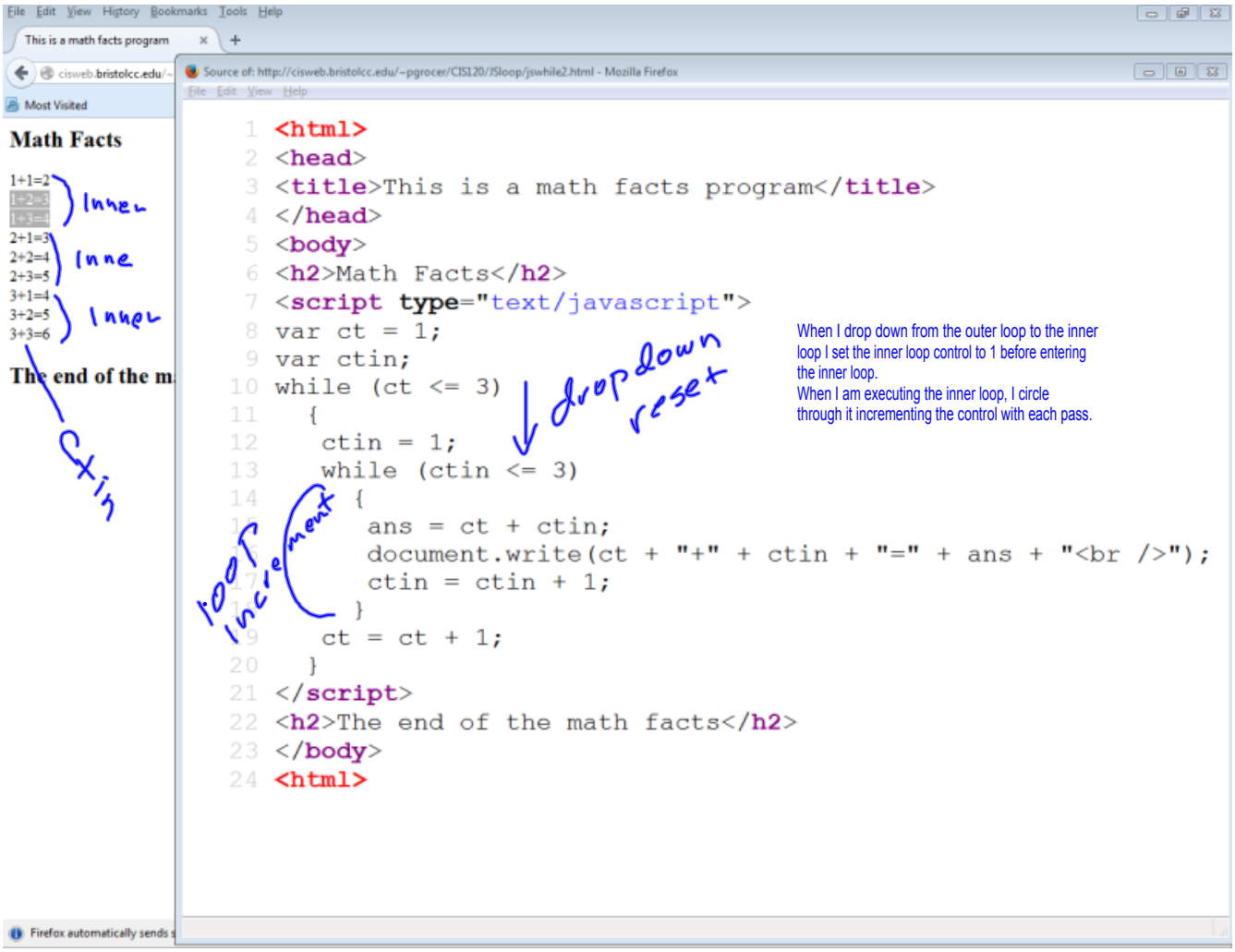

This is a math facts program
Most Visited
Math Facts
1 + 1 = 2
2 + 2 = 4
3 + 3 = 6
The end of the math facts
Three things you need with loops:
1) set the control
2) check the control
3) change the control
Source of: http://cisweb.bristolcc.edu/~pgrocer/CIS120/JSloop/jswhile.html - Mozilla Firefox
<html>
<head>
<title>This is a math facts program</title>
</head>
<body>
<h2>Math Facts</h2>
<script type="text/javascript">
var ct = 1;
while (ct <= 3)
{
ans = ct + ct;
document.write(ct + " + " + ct + " = " + ans + "<br />");
ct = ct + 1;
}
</script>
<h2>The end of the math facts</h2>
</body>
<html>
Note this should be </html>


Source of: http://cisweb.bristolcc.edu/~pgrocer/CIS120/JSloop/jsdowhile.html - Mozilla Firefox
File Edit View Help
1 <html>
2 <head>
3 <title>This is a math facts program</title>
4 </head>
5 <body>
6 <h2>Math Facts</h2>
7 <script type="text/javascript">
8 var ct = 1;
9 do
10 {
11 ans = ct + ct;
12 document.write(ct + " + " + ct + " = " + ans + "<br />");
13 ct = ct + 1;
14 } while (ct <= 3);
15 </script>
16 <h2>The end of the math facts</h2>
17 </body>
18 <html>
Now I want to do the same thing using the do...while with the test at the end as opposed to the while with the test at the top. This means that since the check is after the loop the loop will always be executed once.
Note - it is better to not have the semi-colon - but it does work.
Source of: http://cisweb.bristolcc.edu/~pgrocer/CIS120/JSloop/jswhile.html - Mozilla Firefox
File Edit View Help
1 <html>
2 <head>
3 <title>This is a math facts program</title>
4 </head>
5 <body>
6 <h2>Math Facts</h2>
7 <script type="text/javascript">
8 var ct = 1;
9 while (ct <= 3)
10 {
11 ans = ct + ct;
12 document.write(ct + " + " + ct + " = " + ans + "<br />");
13 ct = ct + 1;
14 }
15 </script>
16 <h2>The end of the math facts</h2>
17 </body>
18 <html>
Firefox automatically sends some
12:35 PM
10/21/2014

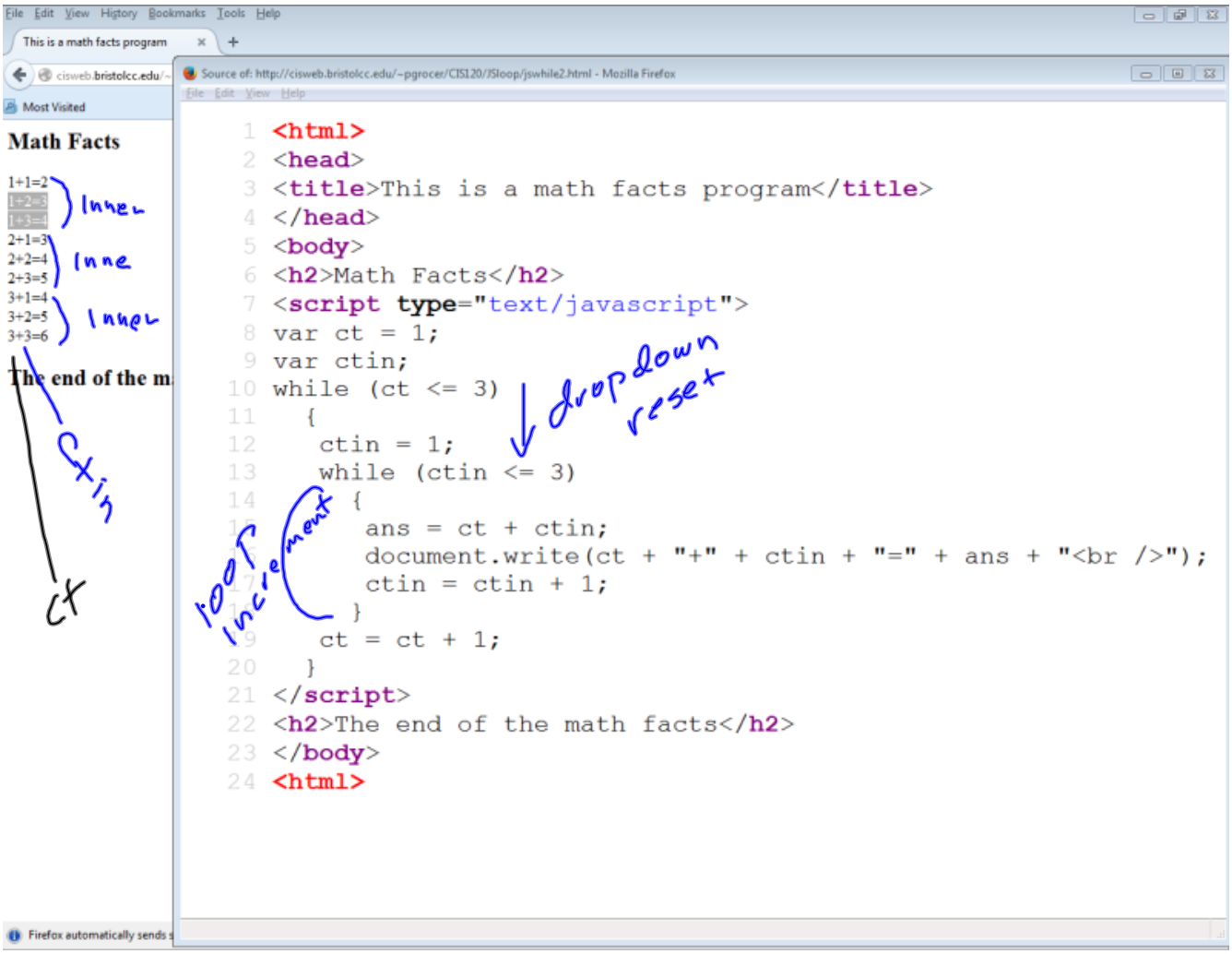

File Edit View History Bookmarks Tools Help
This is a math facts program
cisweb.bristolcc.edu/~pgrocer/CIS120/JSloop/jsdowhile.html
Most Visited
Math Facts
1 + 1 = 2
2 + 2 = 4
3 + 3 = 6
The end of the math facts
Source of: http://cisweb.bristolcc.edu/~pgrocer/CIS120/JSloop/jsdowhile.html - Mozilla Firefox
File Edit View Help
1 <html>
2 <head>
3 <title>This is a math facts program</title>
4 </head>
5 <body>
6 <h2>Math Facts</h2>
7 <script type="text/javascript">
8 var ct = 1;
9 do
10 {
11 ans = ct + ct;
12 document.write(ct + " + " + ct + " = " + ans + "<br />");
13 ct = ct + 1;
14 } while (ct <= 3);
15 </script>
16 <h2>The end of the math facts</h2>
17 </body>
18 <html>
Firefox automatically sends some data to Mozill
12:36 PM
10/21/2014

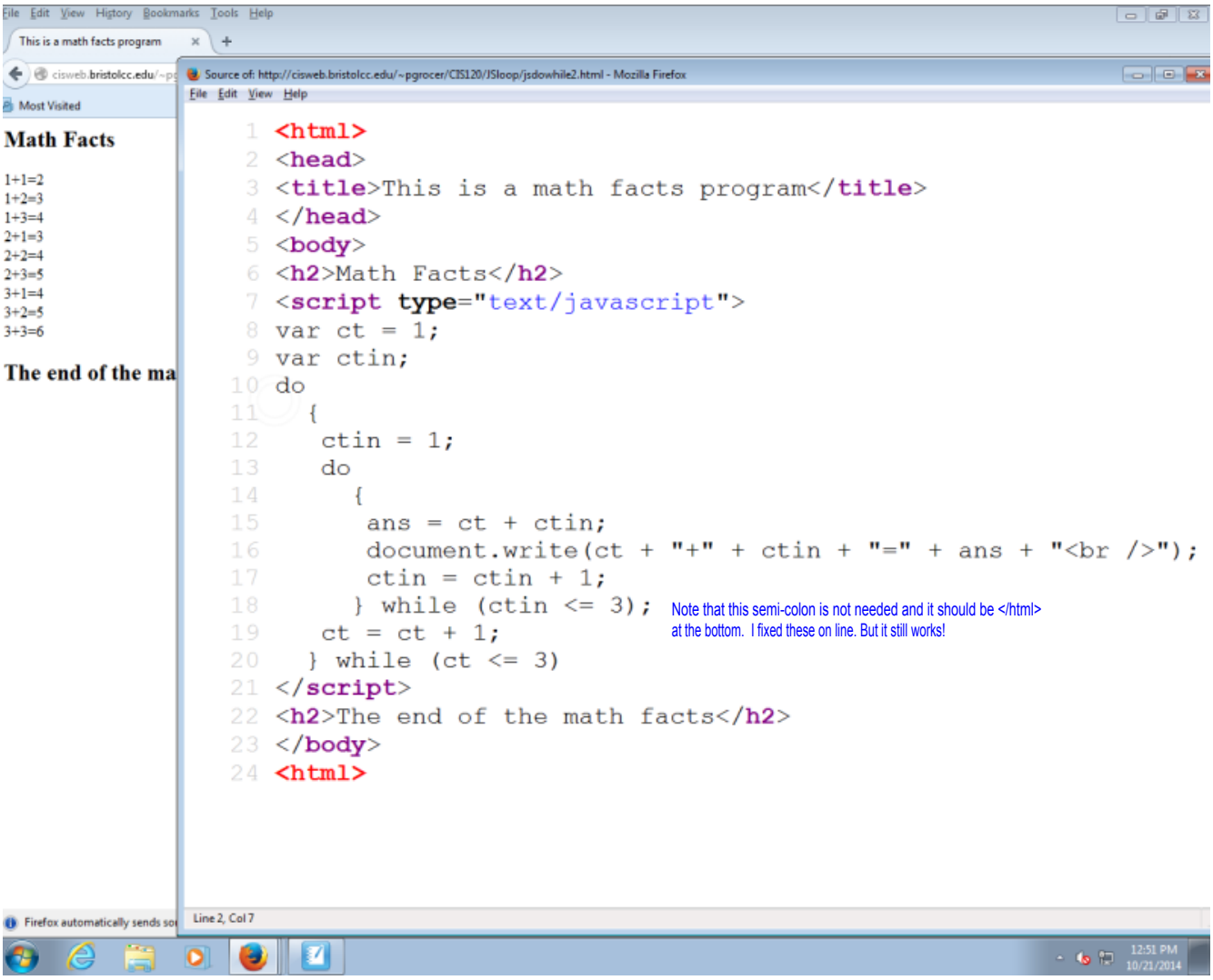

This is a math facts program - Mozilla Firefox
Math Facts
1 + 1 = 2
2 + 2 = 4
3 + 3 = 6
The end of the math facts
Source of: http://cisweb.bristolcc.edu/~pgrocer/CIS120/JSloop/jsdowhile.html - Mozilla Firefox
<html>
<head>
<title>This is a math facts program</title>
</head>
<body>
<h2>Math Facts</h2>
<script type="text/javascript">
var ct = 1;
do
{
ans = ct + ct;
document.write(ct + " + " + ct + " = " + ans + "<br />");
ct = ct + 1;
} while (ct <= 3)
</script>
<h2>The end of the math facts</h2>
</body>
</html>
I took out the semi-colon and made the end </html>


File Edit View History Bookmarks Tools Help
This is a math facts program
cisweb.bristolcc.edu/~pgrocer/CIS120/
Most Visited
Math Facts
1+1=2
2+2=4
3+3=6
The end of the math facts
Source of: http://cisweb.bristolcc.edu/~pgrocer/CIS120/JSloop/jsfor.html - Mozilla Firefox
File Edit View Help
1 <html>
2 <head>
3 <title>This is a math facts program</title>
4 </head>
5 <body>
6 <h2>Math Facts</h2>
7 <script type="text/javascript">
8 var i;
9 for (i=1; i<=3; i=i+1)
10 {
11 ans = i + i;
12 document.write(i + "+" + i + "=" + ans + "<br />");
13 }
14 </script>
15 <h2>The end of the math facts</h2>
16 </body>
17 <html>
set
check
change
i ++
Another way to increment is i++
Note that the for has the set, the check and the change all enclosed in () with the for
Firefox automatically sends some data to Mo

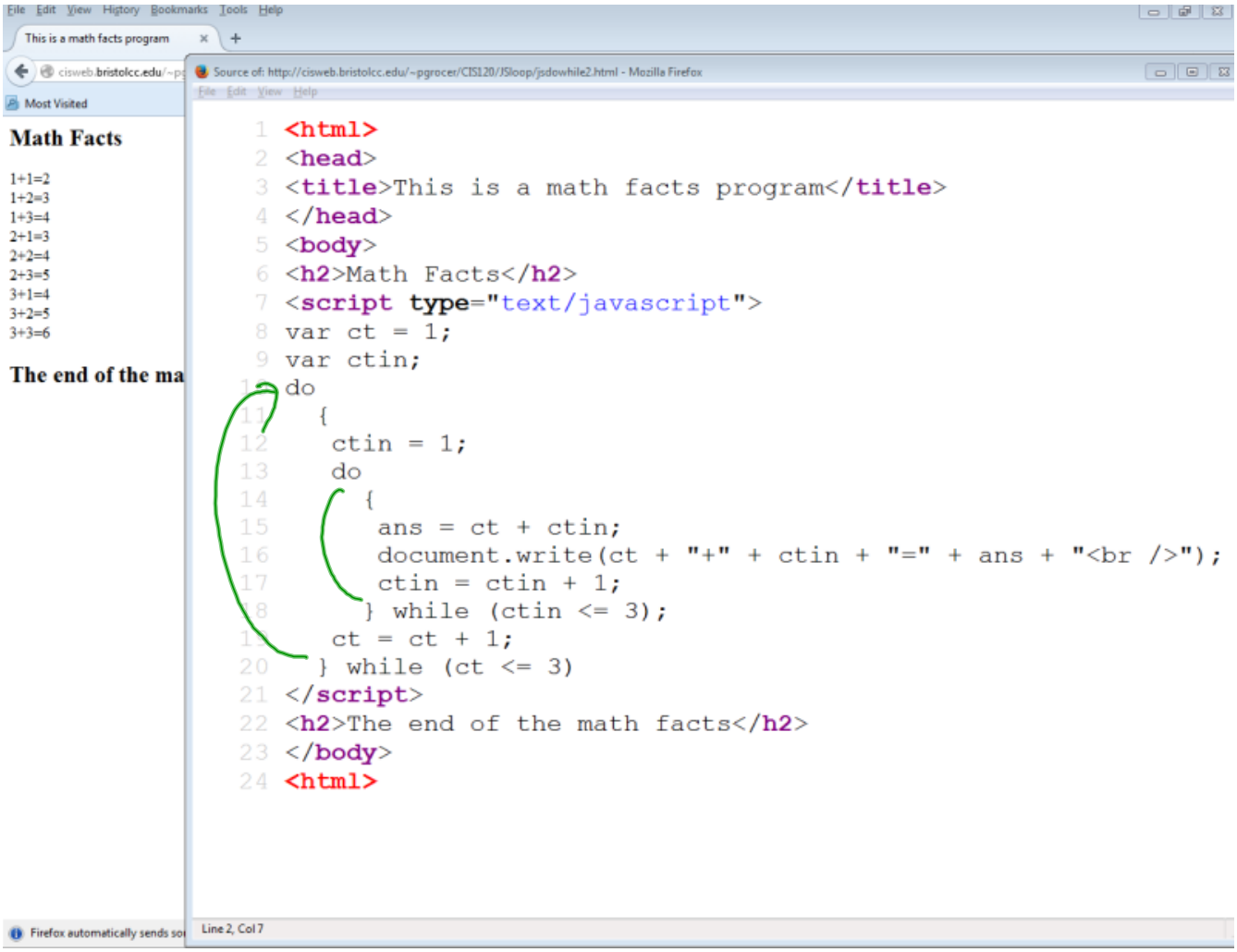


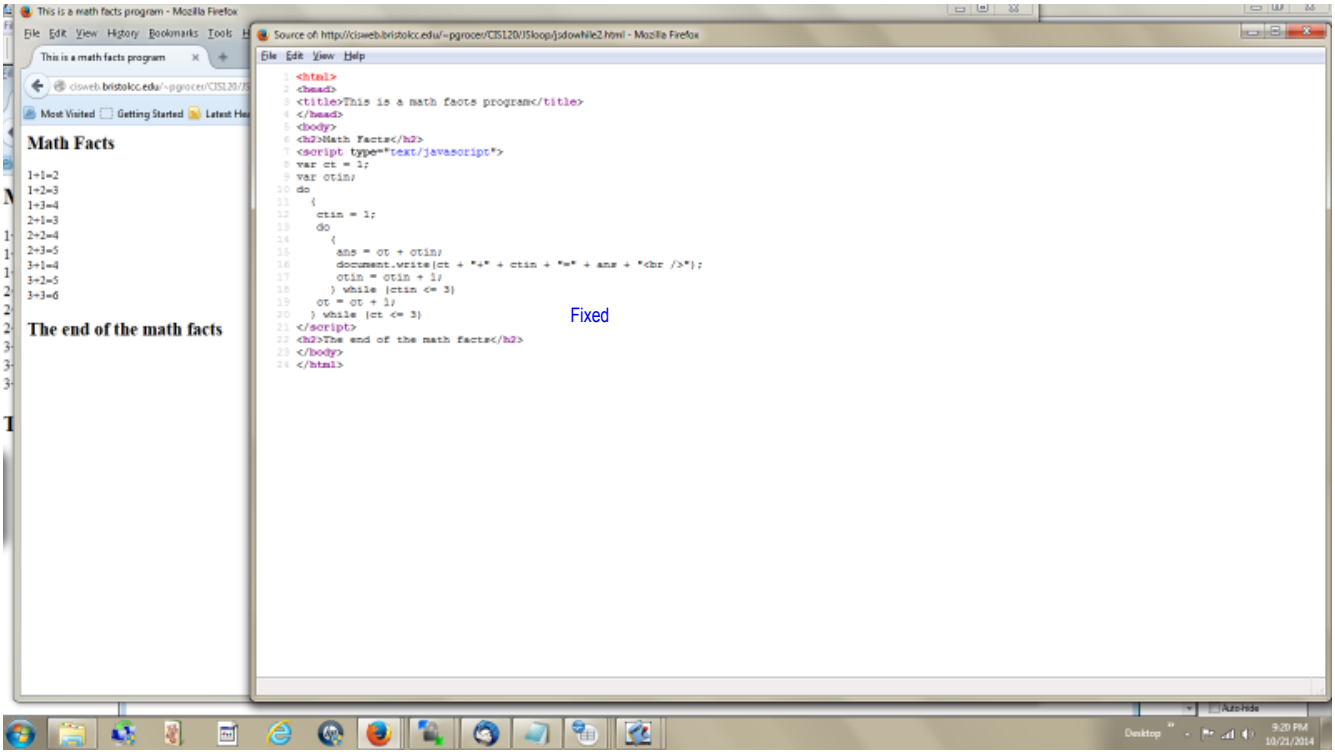
When I drop down from the outer loop to the inner loop I set the inner loop control to 1 before entering the inner loop.
When I am executing the inner loop, I circle through it incrementing the control with each pass.


Math Facts
1+1=2
1+2=3
1+3=4
2+1=3
2+2=4
2+3=5
3+1=4
3+2=5
3+3=6
The end of the m
Inner
Inner
Inner
ctin
ct
Source of: http://cisweb.bristolcc.edu/~pgrocer/CIS120/JSloop/jswhile2.html - Mozilla Firefox
1 <html>
2 <head>
3 <title>This is a math facts program</title>
4 </head>
5 <body>
6 <h2>Math Facts</h2>
7 <script type="text/javascript">
8 var ct = 1;
9 var ctin;
10 while (ct <= 3)
11 {
12 ctin = 1;
13 while (ctin <= 3)
14 {
15 ans = ct + ctin;
16 document.write(ct + "+" + ctin + "=" + ans + "<br />");
17 ctin = ctin + 1;
18 }
19 ct = ct + 1;
20 }
21 </script>
22 <h2>The end of the math facts</h2>
23 </body>
24 <html>
dropdown reset
loop increment

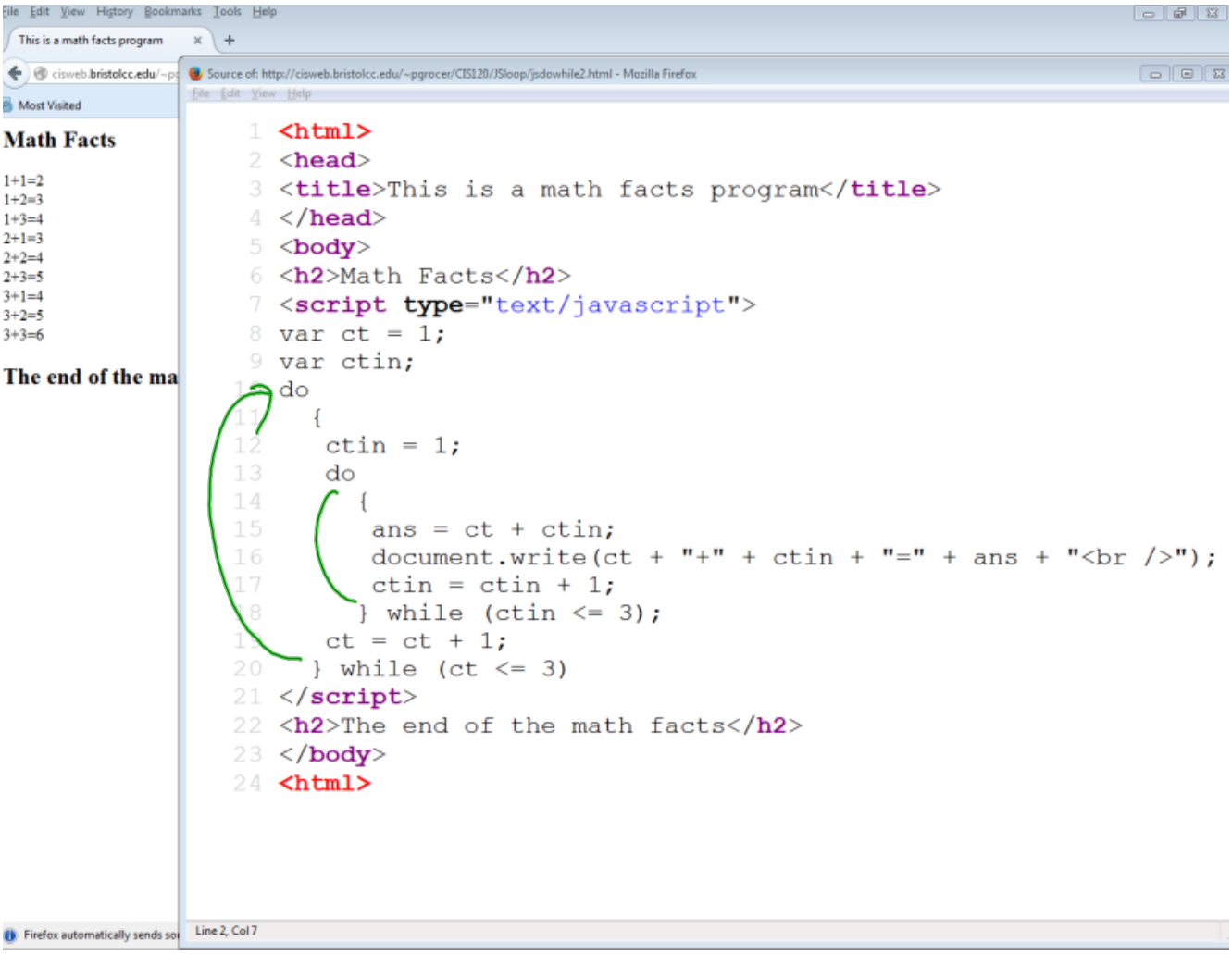


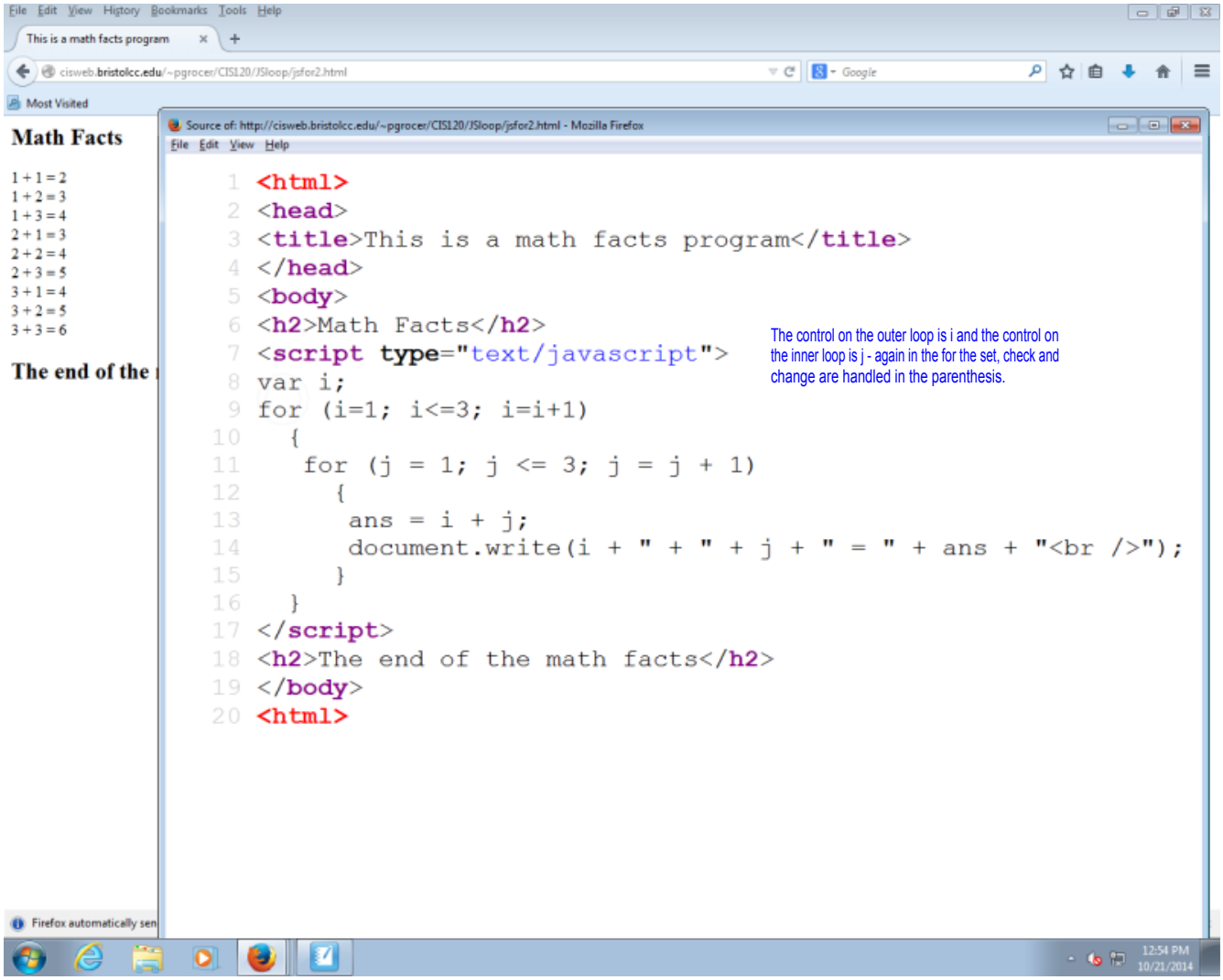
Note that this semi-colon is not needed and it should be </html> at the bottom. I fixed these on line. But it still works!


This is a math facts program
Most Visited
Math Facts
1+1=2
1+2=3
1+3=4
2+1=3
2+2=4
2+3=5
3+1=4
3+2=5
3+3=6
The end of the ma
Source of: http://cisweb.bristolcc.edu/~pgrocer/CIS120/JSloop/jsdowhile2.html - Mozilla Firefox
1 <html>
2 <head>
3 <title>This is a math facts program</title>
4 </head>
5 <body>
6 <h2>Math Facts</h2>
7 <script type="text/javascript">
8 var ct = 1;
9 var ctin;
10 do
11 {
12 ctin = 1;
13 do
14 {
15 ans = ct + ctin;
16 document.write(ct + "+" + ctin + "=" + ans + "<br />");
17 ctin = ctin + 1;
18 } while (ctin <= 3);
19 ct = ct + 1;
20 } while (ct <= 3)
21 </script>
22 <h2>The end of the math facts</h2>
23 </body>
24 <html>
Line 2, Col 7

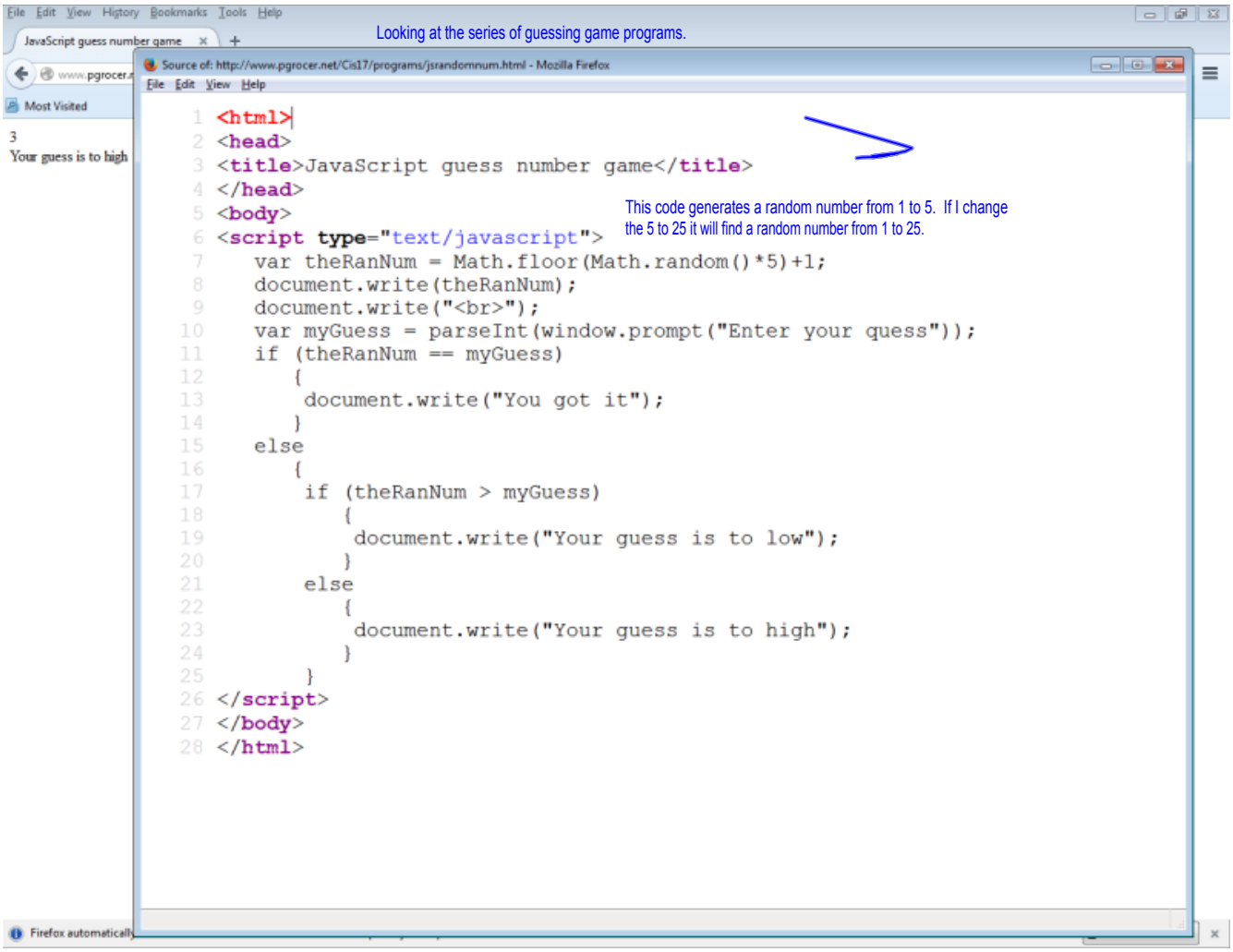

This is a math facts program - Mozilla Firefox
Math Facts
1+1=2
1+2=3
1+3=4
2+1=3
2+2=4
2+3=5
3+1=4
3+2=5
3+3=6
The end of the math facts
Source of: http://cisweb.bristolcc.edu/~pgrocer/CIS120/JSloop/jsdowhile2.html - Mozilla Firefox
<html>
<head>
<title>This is a math facts program</title>
</head>
<body>
<h2>Math Facts</h2>
<script type="text/javascript">
var ct = 1;
var ctin;
do
{
ctin = 1;
do
{
ans = ct * ctin;
document.write(ct + "*" + ctin + "=" + ans + "<br />");
ctin = ctin + 1;
} while (ctin <= 3)
ct = ct + 1;
} while (ct <= 3)
</script>
<h2>The end of the math facts</h2>
</body>
</html>

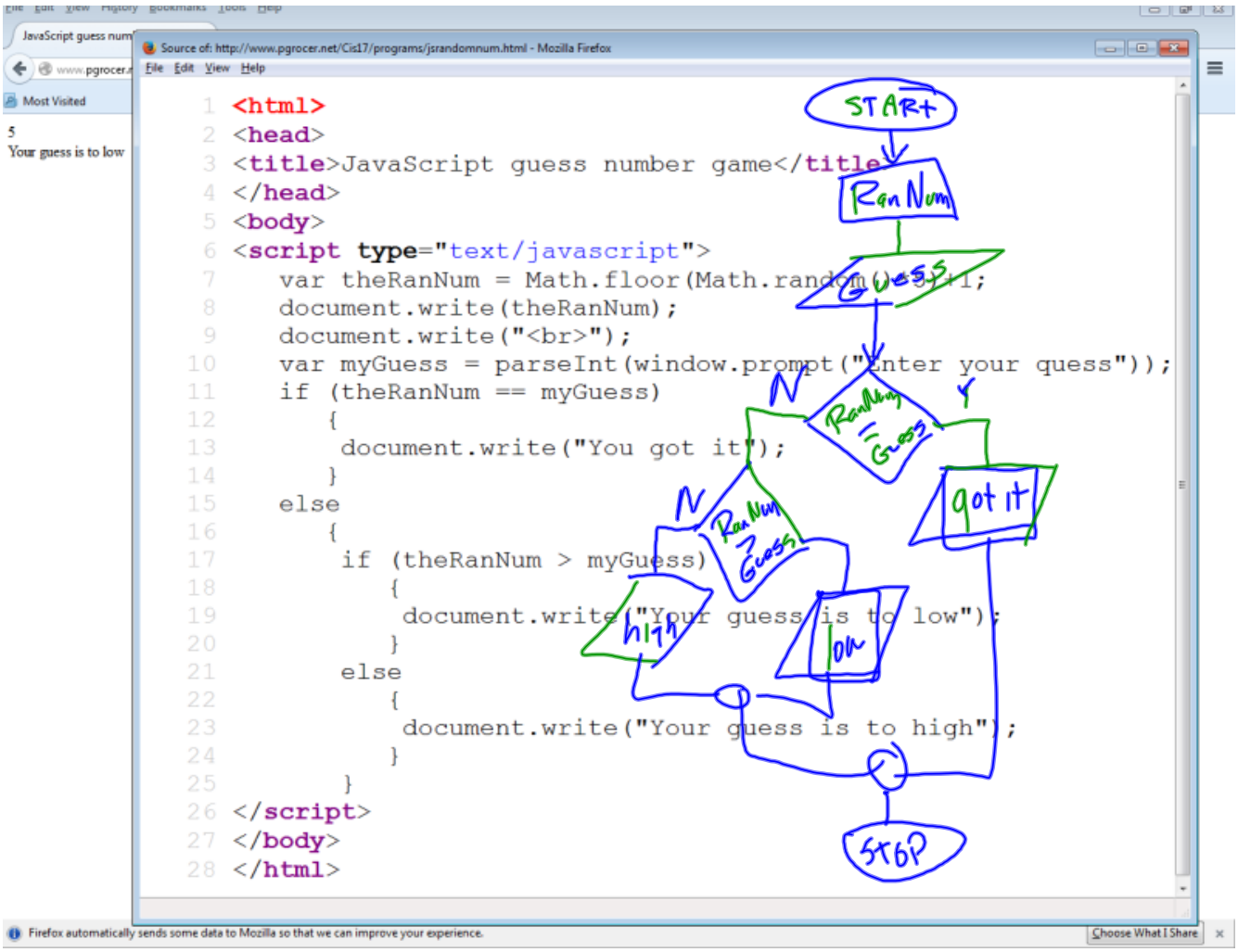
Fixed

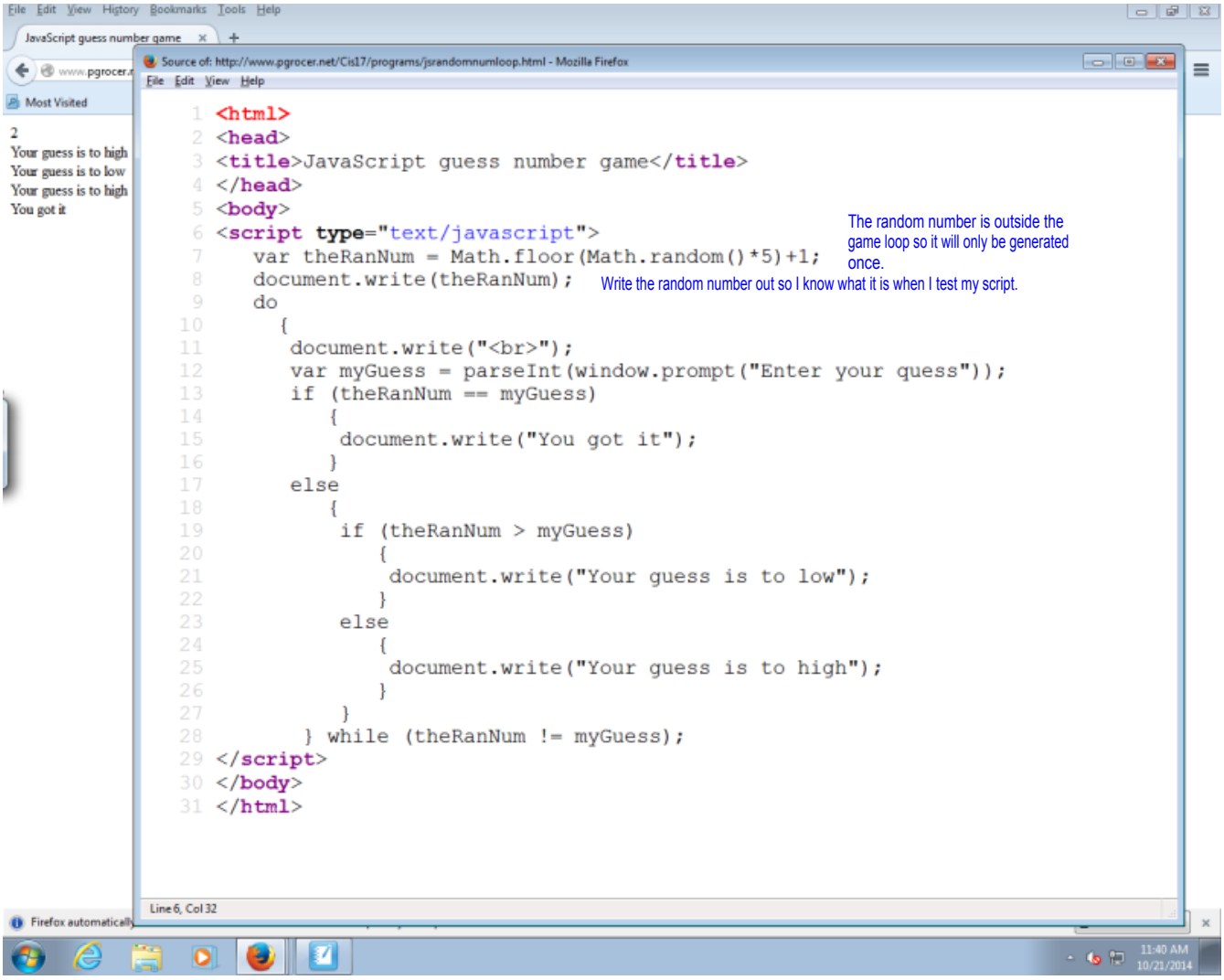

This is a math facts program
Most Visited
Math Facts
1+1=2
1+2=3
1+3=4
2+1=3
2+2=4
2+3=5
3+1=4
3+2=5
3+3=6
The end of the ma
Source of: http://cisweb.bristolcc.edu/~pgrocer/CIS120/JSloop/jsdowhile2.html - Mozilla Firefox
1 <html>
2 <head>
3 <title>This is a math facts program</title>
4 </head>
5 <body>
6 <h2>Math Facts</h2>
7 <script type="text/javascript">
8 var ct = 1;
9 var ctin;
10 do
11 {
12 ctin = 1;
13 do
14 {
15 ans = ct + ctin;
16 document.write(ct + "+" + ctin + "=" + ans + "<br />");
17 ctin = ctin + 1;
18 } while (ctin <= 3);
19 ct = ct + 1;
20 } while (ct <= 3)
21 </script>
22 <h2>The end of the math facts</h2>
23 </body>
24 <html>
Line 2, Col 7


File Edit View History Bookmarks Tools Help
This is a math facts program
cisweb.bristolcc.edu/~pgrocer/CIS120/JSloop/jsfor2.html
Most Visited
Math Facts
1 + 1 = 2
1 + 2 = 3
1 + 3 = 4
2 + 1 = 3
2 + 2 = 4
2 + 3 = 5
3 + 1 = 4
3 + 2 = 5
3 + 3 = 6
The end of the
Source of: http://cisweb.bristolcc.edu/~pgrocer/CIS120/JSloop/jsfor2.html - Mozilla Firefox
File Edit View Help
1 <html>
2 <head>
3 <title>This is a math facts program</title>
4 </head>
5 <body>
6 <h2>Math Facts</h2>
7 <script type="text/javascript">
8 var i;
9 for (i=1; i<=3; i=i+1)
10 {
11 for (j = 1; j <= 3; j = j + 1)
12 {
13 ans = i + j;
14 document.write(i + " + " + j + " = " + ans + "<br />");
15 }
16 }
17 </script>
18 <h2>The end of the math facts</h2>
19 </body>
20 <html>
The control on the outer loop is i and the control on the inner loop is j - again in the for the set, check and change are handled in the parenthesis.
Firefox automatically sen
12:54 PM
10/21/2014

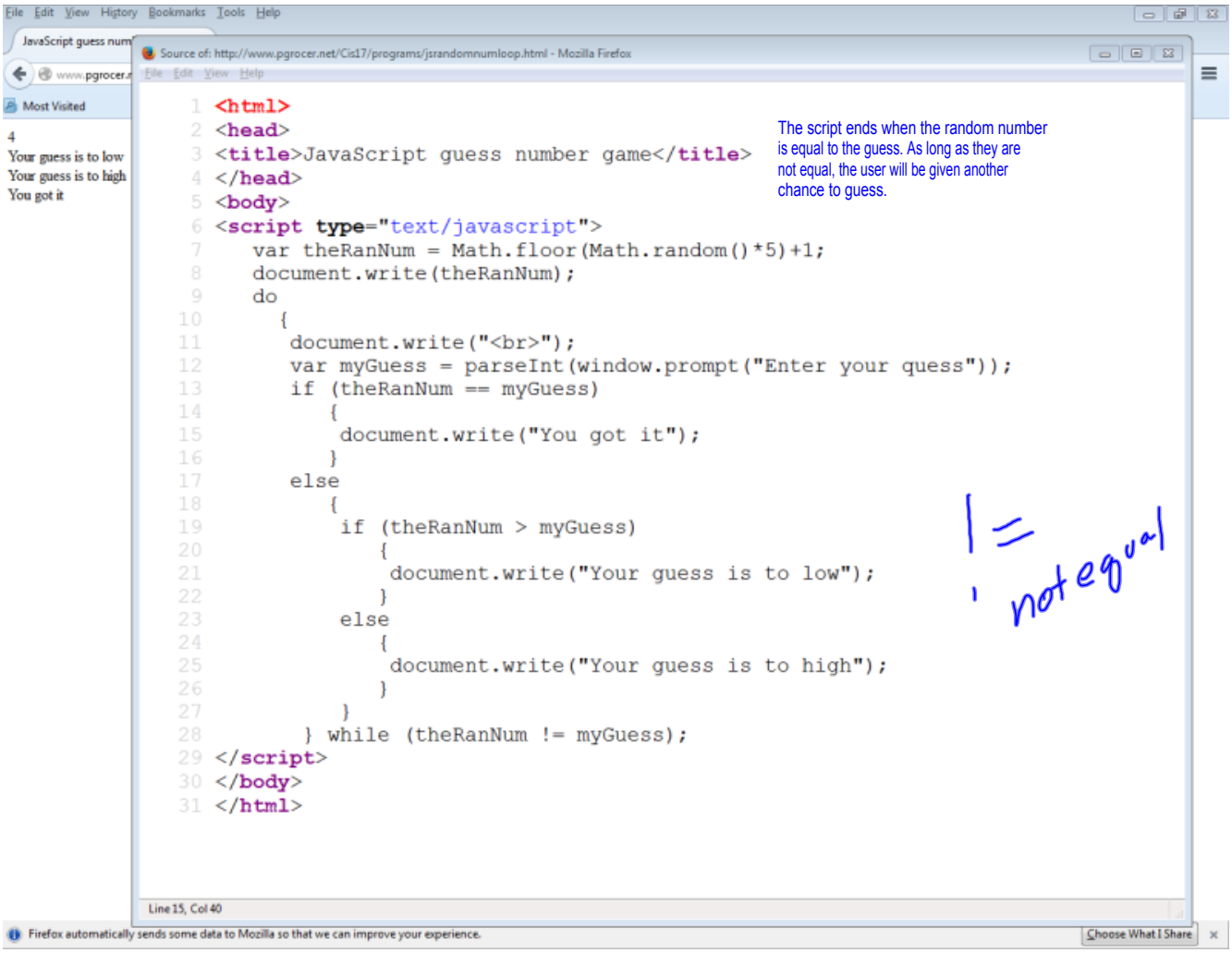
Looking at the series of guessing game programs.

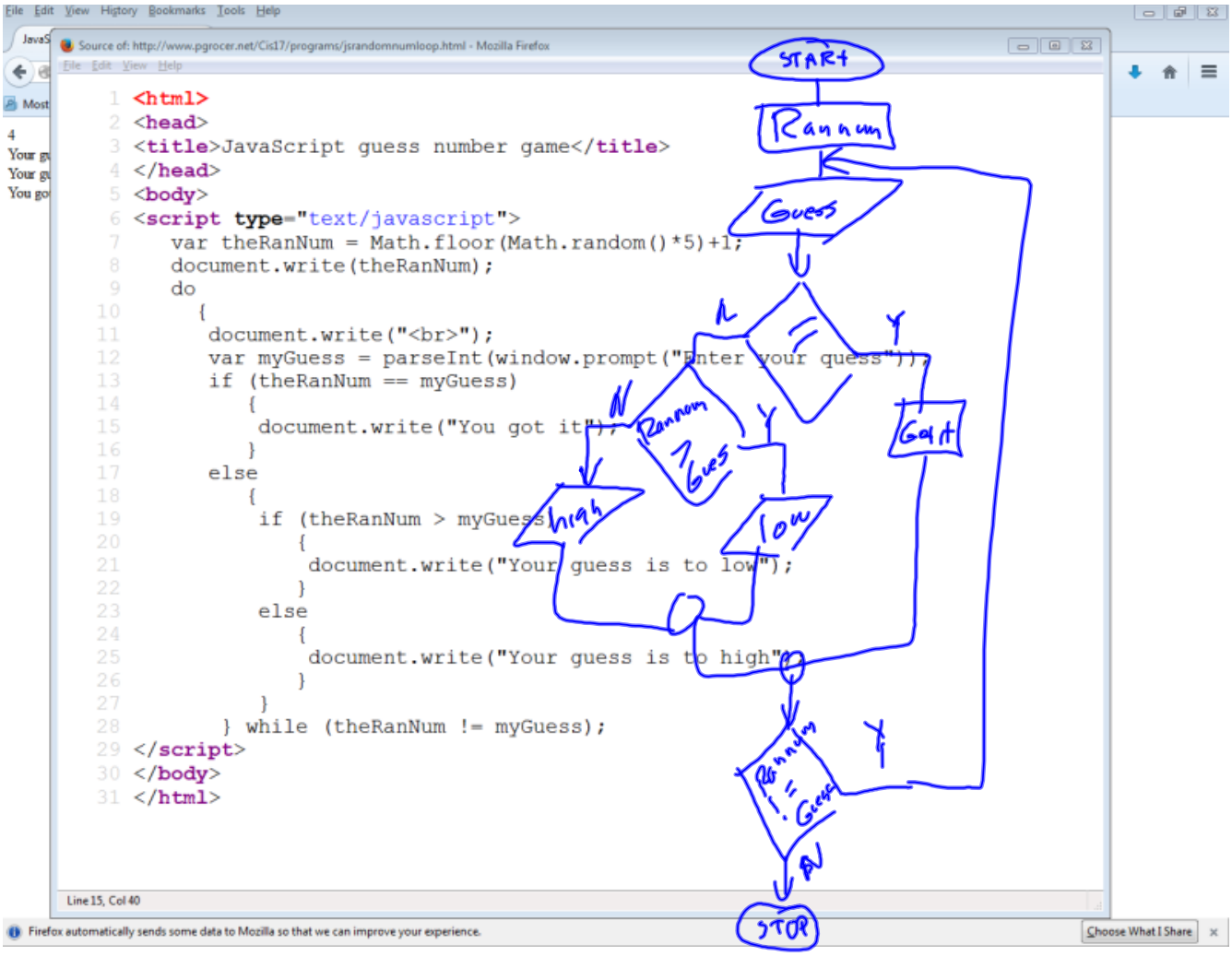


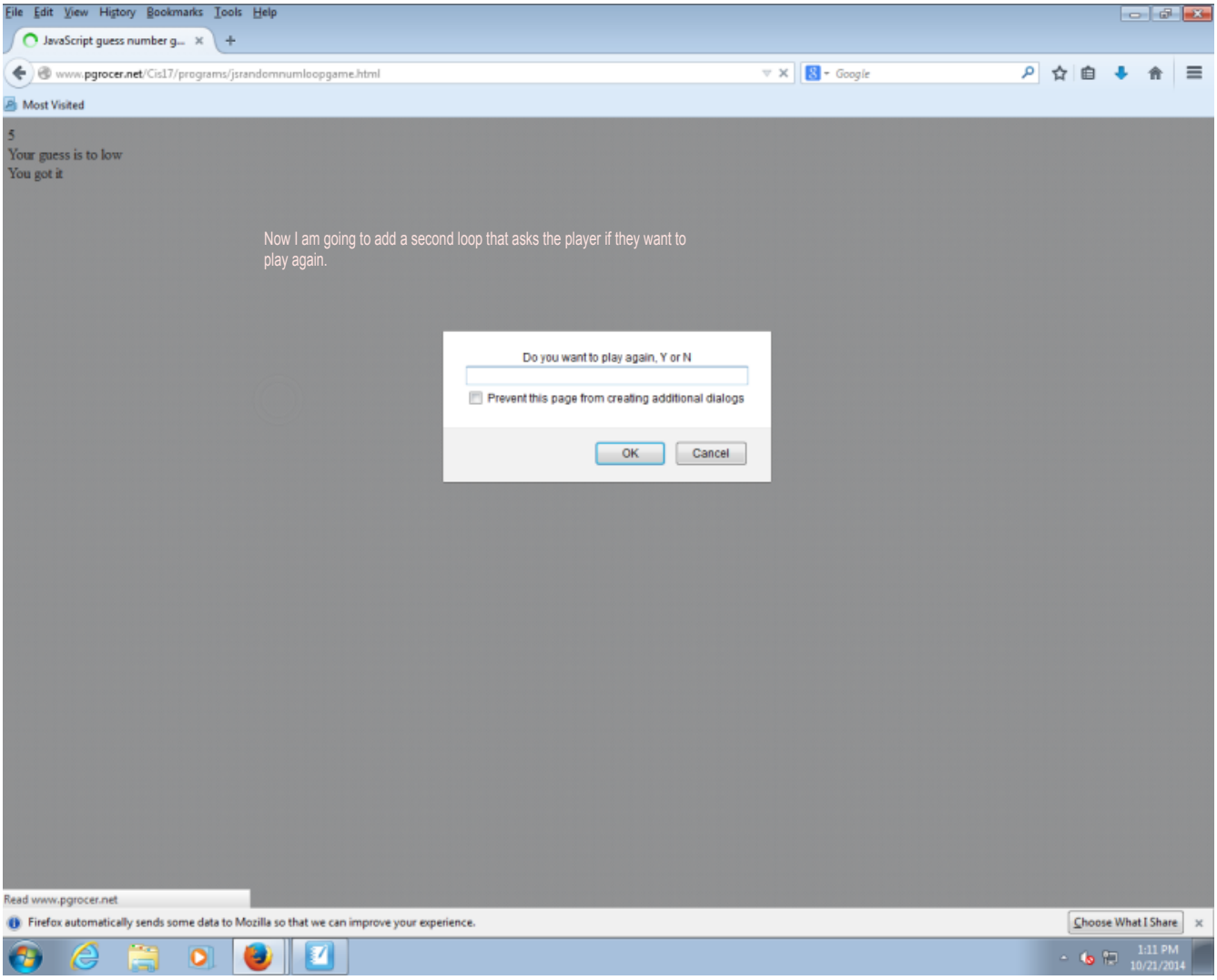

JavaScript guess num
Most Visited
5
Your guess is to low
Source of: http://www.pgrocer.net/Cis17/programs/jsrandomnum.html - Mozilla Firefox
File Edit View Help
1 <html>
2 <head>
3 <title>JavaScript guess number game</title>
4 </head>
5 <body>
6 <script type="text/javascript">
7 var theRanNum = Math.floor(Math.random()*5+1;
8 document.write(theRanNum);
9 document.write("<br>");
10 var myGuess = parseInt(window.prompt("Enter your guess"));
11 if (theRanNum == myGuess)
12 {
13 document.write("You got it");
14 }
15 else
16 {
17 if (theRanNum > myGuess)
18 {
19 document.write("Your guess is to low");
20 }
21 else
22 {
23 document.write("Your guess is to high");
24 }
25 }
26 </script>
27 </body>
28 </html>
START
RanNum
Guess
RanNum = Guess
N
Y
got it
RanNum > Guess
N
high
low
STOP
Firefox automatically sends some data to Mozilla so that we can improve your experience.
Choose What I Share

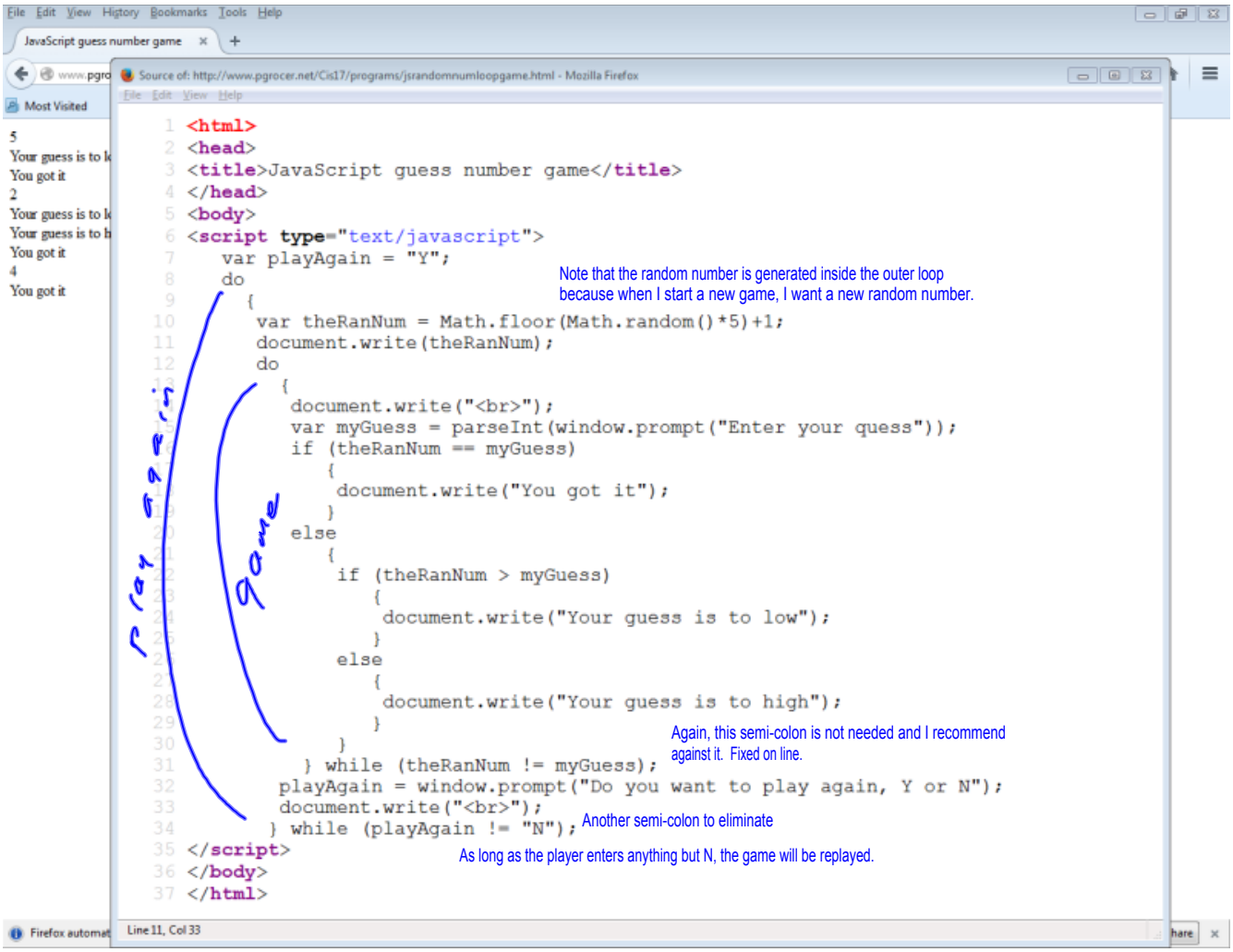



```
<html>
<head>
<title>JavaScript guess number game</title>
</head>
<body>
<script type="text/javascript">
   var theRanNum = Math.floor(Math.random()*5)+1;
   document.write(theRanNum);
   do
     {
      document.write("<br>");
      var myGuess = parseInt(window.prompt("Enter your guess"));
      if (theRanNum == myGuess)
         {
          document.write("You got it");
         }
      else
         {
          if (theRanNum > myGuess)
             {
              document.write("Your guess is to low");
             }
          else
             {
              document.write("Your guess is to high");
             }
         }
       } while (theRanNum != myGuess);
</script>
</body>
</html>
```


File Edit View History Bookmarks Tools Help
JavaScript guess num
Source of: http://www.pgrocer.net/Cis17/programs/jsrandomnumloop.html - Mozilla Firefox
Most Visited
4
Your guess is to low
Your guess is to high
You got it
1 <html>
2 <head>
3 <title>JavaScript guess number game</title>
4 </head>
5 <body>
6 <script type="text/javascript">
7 var theRanNum = Math.floor(Math.random()*5)+1;
8 document.write(theRanNum);
9 do
10 {
11 document.write("<br>");
12 var myGuess = parseInt(window.prompt("Enter your guess"));
13 if (theRanNum == myGuess)
14 {
15 document.write("You got it");
16 }
17 else
18 {
19 if (theRanNum > myGuess)
20 {
21 document.write("Your guess is to low");
22 }
23 else
24 {
25 document.write("Your guess is to high");
26 }
27 }
28 } while (theRanNum != myGuess);
29 </script>
30 </body>
31 </html>
The script ends when the random number is equal to the guess. As long as they are not equal, the user will be given another chance to guess.
!=
not equal
Line 15, Col 40
Firefox automatically sends some data to Mozilla so that we can improve your experience.
Choose What I Share


File Edit View History Bookmarks Tools Help
Source of: http://www.pgrocer.net/Cis17/programs/jsrandomnumloop.html - Mozilla Firefox
File Edit View Help
1 <html>
2 <head>
3 <title>JavaScript guess number game</title>
4 </head>
5 <body>
6 <script type="text/javascript">
7 var theRanNum = Math.floor(Math.random()*5)+1;
8 document.write(theRanNum);
9 do
10 {
11 document.write("<br>");
12 var myGuess = parseInt(window.prompt("Enter your guess"));
13 if (theRanNum == myGuess)
14 {
15 document.write("You got it");
16 }
17 else
18 {
19 if (theRanNum > myGuess)
20 {
21 document.write("Your guess is to low");
22 }
23 else
24 {
25 document.write("Your guess is to high");
26 }
27 }
28 } while (theRanNum != myGuess);
29 </script>
30 </body>
31 </html>
Line 15, Col 40
Firefox automatically sends some data to Mozilla so that we can improve your experience.
Choose What I Share
START
Ranum
Guess
=
N
Y
Ranum = Guess
N
Y
Got it
high
low
Ranum != Guess
Y
N
STOP


File Edit View History Bookmarks Tools Help
JavaScript guess number g...
www.pgrocer.net/Cis17/programs/jsrandomnumloopgame.html
Google
Most Visited
5
Your guess is to low
You got it
Now I am going to add a second loop that asks the player if they want to play again.
Do you want to play again, Y or N
Prevent this page from creating additional dialogs
OK
Cancel
Read www.pgrocer.net
Firefox automatically sends some data to Mozilla so that we can improve your experience.
Choose What I Share
1:11 PM
10/21/2014



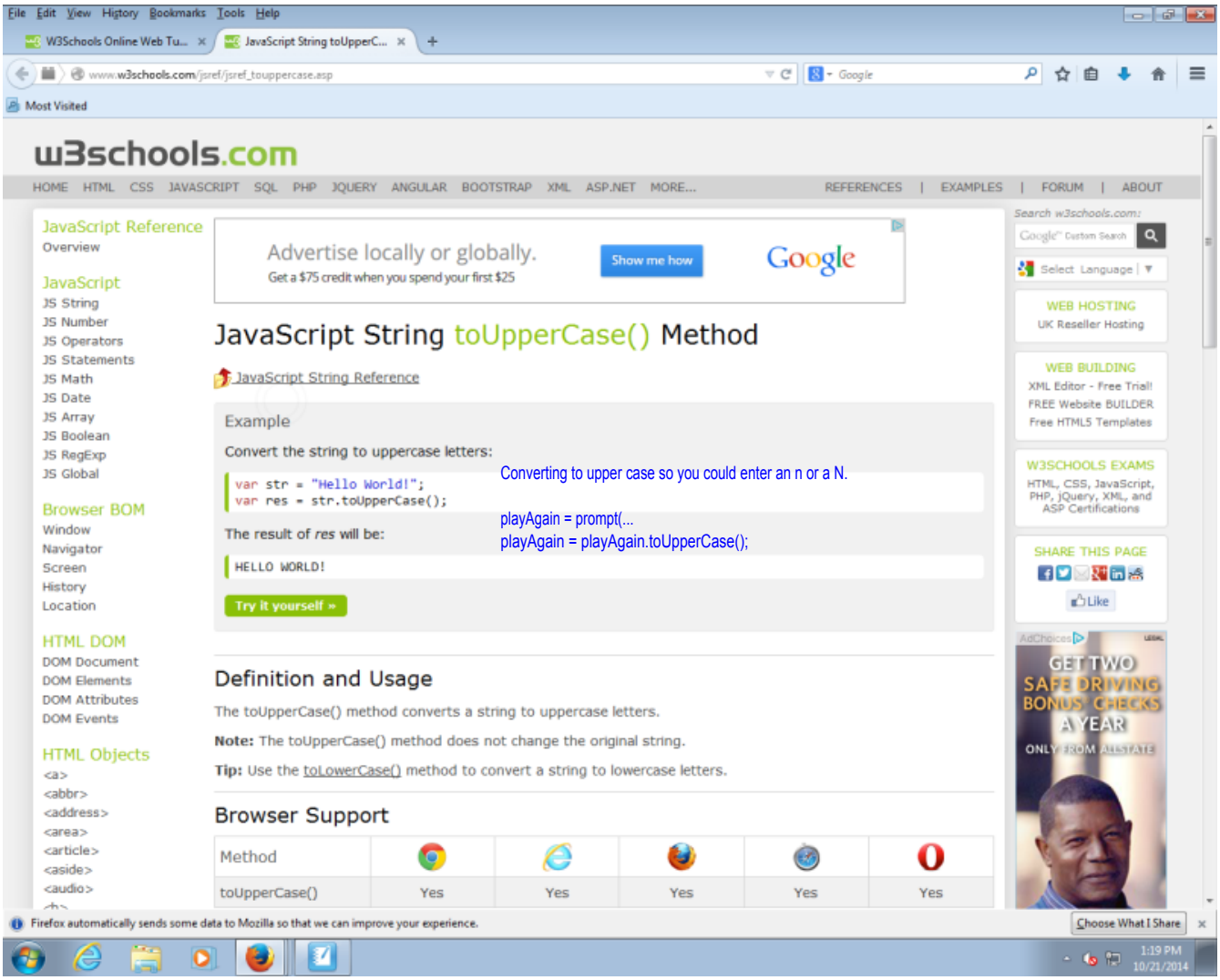

```
<html>
<head>
<title>JavaScript guess number game</title>
</head>
<body>
<script type="text/javascript">
   var playAgain = "Y";
   do
    {
     var theRanNum = Math.floor(Math.random()*5)+1;
     document.write(theRanNum);
     do
      {
       document.write("<br>");
       var myGuess = parseInt(window.prompt("Enter your guess"));
       if (theRanNum == myGuess)
          {
           document.write("You got it");
          }
       else
          {
           if (theRanNum > myGuess)
              {
               document.write("Your guess is to low");
              }
           else
              {
               document.write("Your guess is to high");
              }
          }
      } while (theRanNum != myGuess);
     playAgain = window.prompt("Do you want to play again, Y or N");
     document.write("<br>");
    } while (playAgain != "N");
</script>
</body>
</html>
```

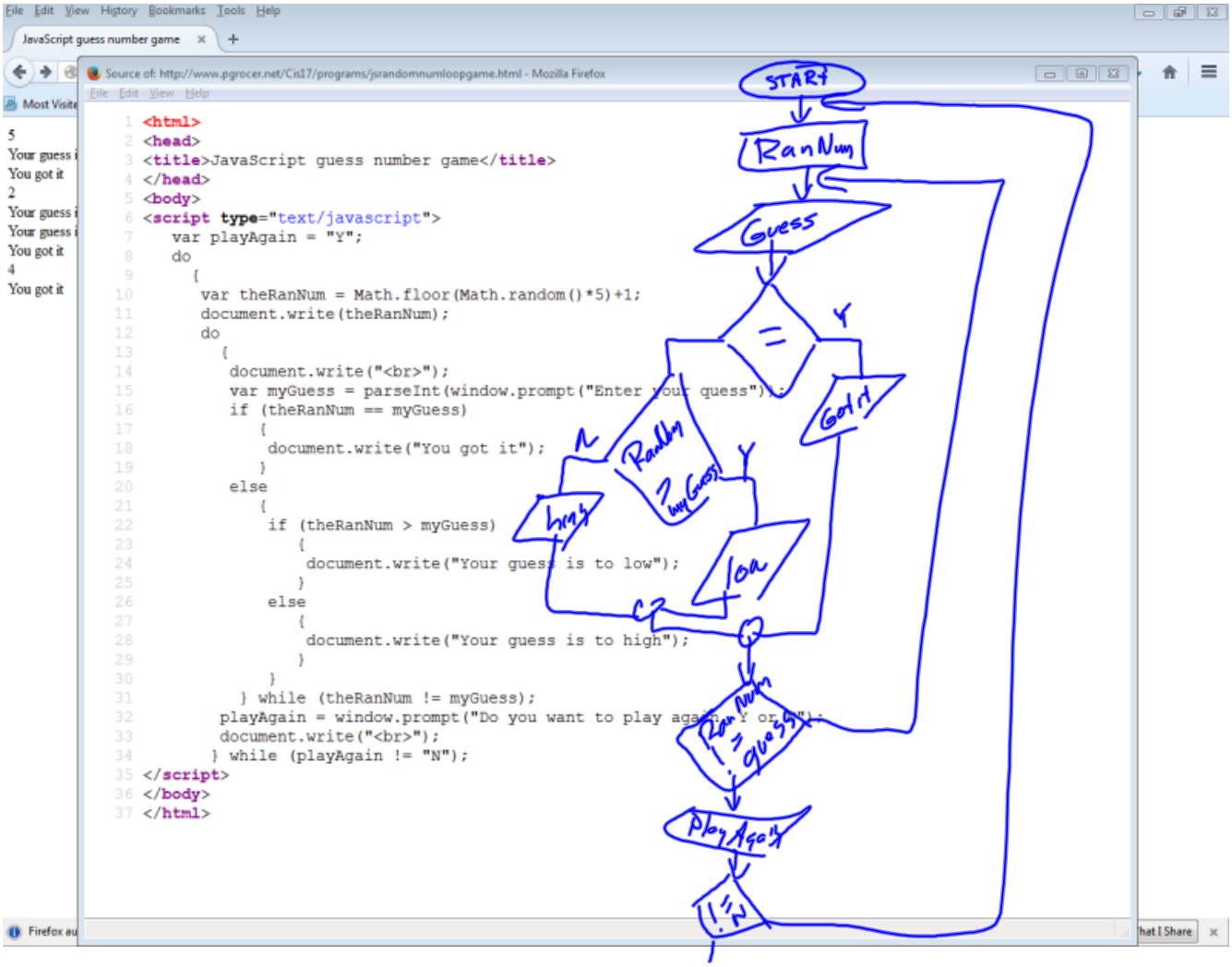
Note that the random number is generated inside the outer loop because when I start a new game, I want a new random number.

Again, this semi-colon is not needed and I recommend against it. Fixed on line.

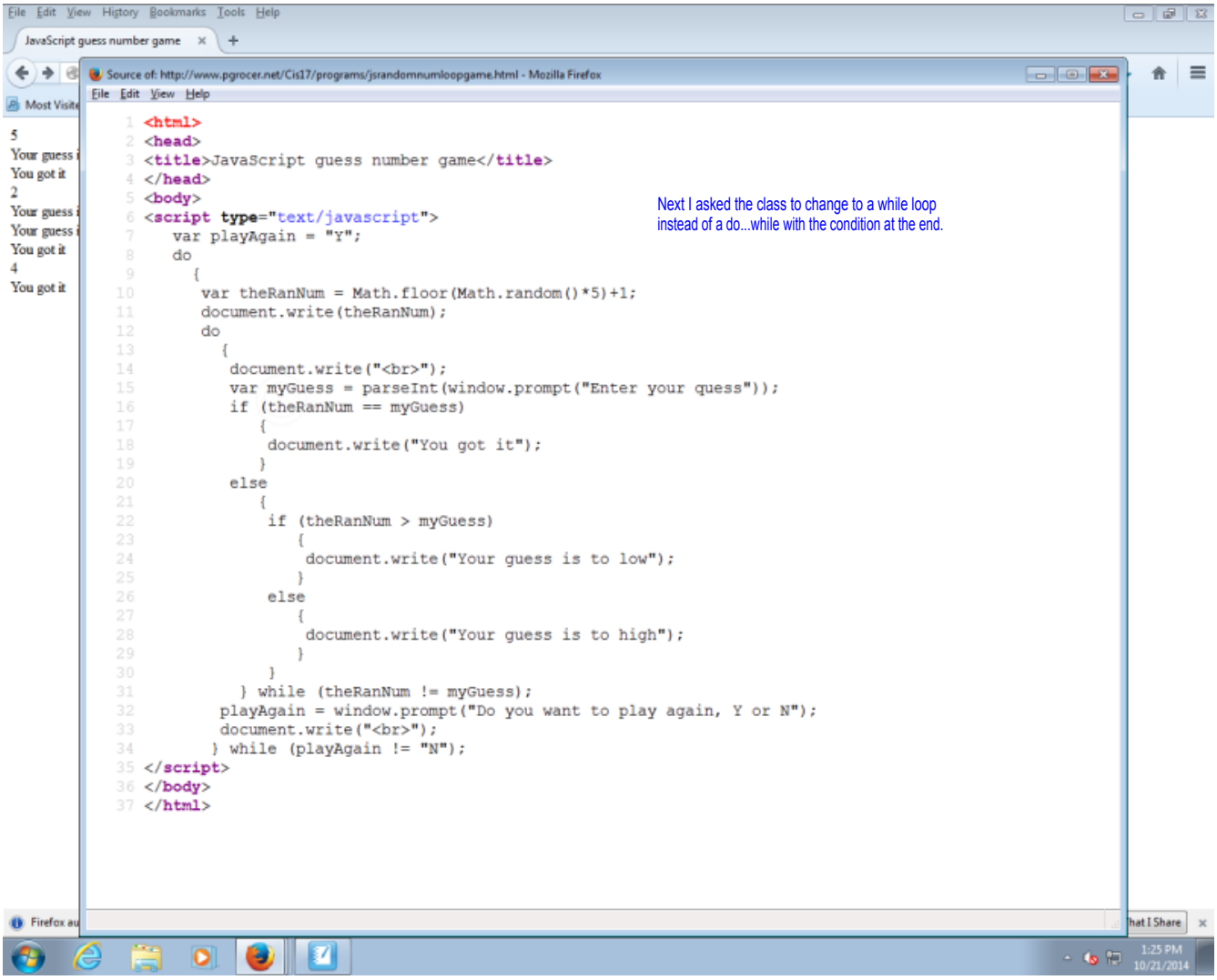
Another semi-colon to eliminate

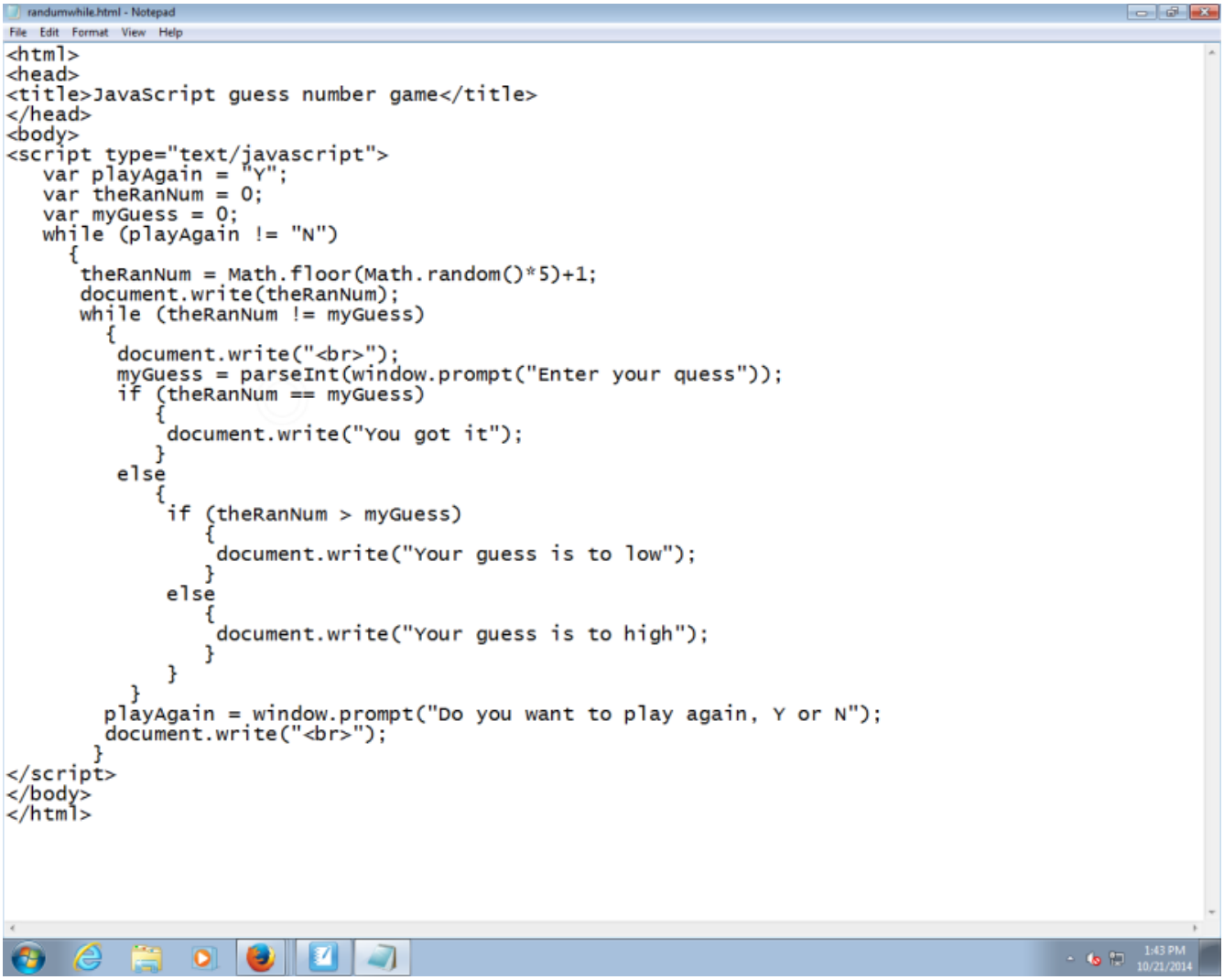
As long as the player enters anything but N, the game will be replayed.


w3schools.com
JavaScript String toUpperCase() Method
JavaScript String Reference
Example
Convert the string to uppercase letters:
var str = "Hello World!";
var res = str.toUpperCase();
The result of res will be:
HELLO WORLD!
Try it yourself »
Converting to upper case so you could enter an n or a N.
playAgain = prompt(...
playAgain = playAgain.toUpperCase();
Definition and Usage
The toUpperCase() method converts a string to uppercase letters.
Note: The toUpperCase() method does not change the original string.
Tip: Use the toLowerCase() method to convert a string to lowercase letters.
Browser Support
Method
toUpperCase()
Yes
Advertise locally or globally.
Get a $75 credit when you spend your first $25
Show me how
Google



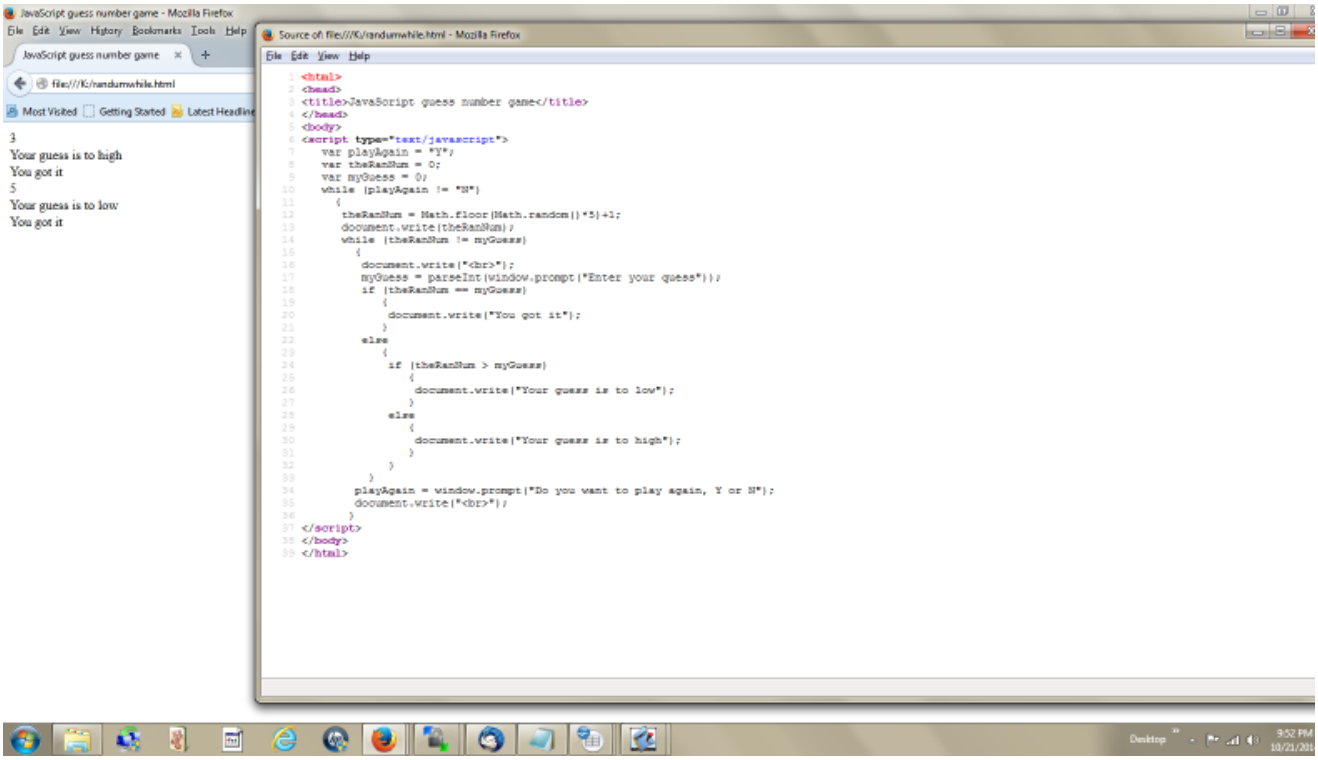

```
<html>
<head>
<title>JavaScript guess number game</title>
</head>
<body>
<script type="text/javascript">
   var playAgain = "Y";
   do
     {
      var theRanNum = Math.floor(Math.random()*5)+1;
      document.write(theRanNum);
      do
        {
         document.write("<br>");
         var myGuess = parseInt(window.prompt("Enter your guess"));
         if (theRanNum == myGuess)
            {
             document.write("You got it");
            }
         else
            {
             if (theRanNum > myGuess)
                {
                 document.write("Your guess is to low");
                }
             else
                {
                 document.write("Your guess is to high");
                }
             }
          } while (theRanNum != myGuess);
        playAgain = window.prompt("Do you want to play again Y or N");
        document.write("<br>");
       } while (playAgain != "N");
</script>
</body>
</html>
```


File Edit View History Bookmarks Tools Help
JavaScript guess number game
Source of: http://www.pgrocer.net/Cis17/programs/jsrandomnumloopgame.html - Mozilla Firefox
File Edit View Help
5
Your guess
You got it
2
Your guess
Your guess
You got it
4
You got it
1 <html>
2 <head>
3 <title>JavaScript guess number game</title>
4 </head>
5 <body>
6 <script type="text/javascript">
7 var playAgain = "Y";
8 do
9 {
10 var theRanNum = Math.floor(Math.random()*5)+1;
11 document.write(theRanNum);
12 do
13 {
14 document.write("<br>");
15 var myGuess = parseInt(window.prompt("Enter your guess"));
16 if (theRanNum == myGuess)
17 {
18 document.write("You got it");
19 }
20 else
21 {
22 if (theRanNum > myGuess)
23 {
24 document.write("Your guess is to low");
25 }
26 else
27 {
28 document.write("Your guess is to high");
29 }
30 }
31 } while (theRanNum != myGuess);
32 playAgain = window.prompt("Do you want to play again, Y or N");
33 document.write("<br>");
34 } while (playAgain != "N");
35 </script>
36 </body>
37 </html>
Next I asked the class to change to a while loop
instead of a do...while with the condition at the end.
Firefox au
hat I Share
1:25 PM
10/21/2014


randumwhile.html - Notepad

File Edit Format View Help

```
<html>
<head>
<title>JavaScript guess number game</title>
</head>
<body>
<script type="text/javascript">
   var playAgain = "Y";
   var theRanNum = 0;
   var myGuess = 0;
   while (playAgain != "N")
     {
      theRanNum = Math.floor(Math.random()*5)+1;
      document.write(theRanNum);
      while (theRanNum != myGuess)
        {
         document.write("<br>");
         myGuess = parseInt(window.prompt("Enter your guess"));
         if (theRanNum == myGuess)
            {
             document.write("You got it");
            }
         else
            {
             if (theRanNum > myGuess)
                {
                 document.write("Your guess is to low");
                }
             else
                {
                 document.write("Your guess is to high");
                }
            }
        }
       playAgain = window.prompt("Do you want to play again, Y or N");
       document.write("<br>");
      }
</script>
</body>
</html>
```


JavaScript guess number game - Mozilla Firefox
3
Your guess is to high
You got it
5
Your guess is to low
You got it
Source of: file:///K:/randumwhile.html - Mozilla Firefox
<html>
<head>
<title>JavaScript guess number game</title>
</head>
<body>
<script type="text/javascript">
var playAgain = "Y";
var theRanNum = 0;
var myGuess = 0;
while (playAgain != "N")
{
theRanNum = Math.floor(Math.random()*5)+1;
document.write(theRanNum);
while (theRanNum != myGuess)
{
document.write("<br>");
myGuess = parseInt(window.prompt("Enter your guess"));
if (theRanNum == myGuess)
{
document.write("You got it");
}
else
{
if (theRanNum > myGuess)
{
document.write("Your guess is to low");
}
else
{
document.write("Your guess is to high");
}
}
}
playAgain = window.prompt("Do you want to play again, Y or N");
document.write("<br>");
}
</script>
</body>
</html>