

```
1 using System;
2 using System.Collections.Generic;
3 using System.Linq;
4 using System.Text;
5 using System.Threading.Tasks;
6
7 namespace Scenariusz_3_Data_Generator
8 {
9     class Program
10     {
11         static public double Rastrigin3D(double x1, double x2)
12         {
13
14             double suma = 20;
15             suma += x1 * x1 - (10 * Math.Cos(2 * Math.PI * x1));
16             suma += x2 * x2 - (10 * Math.Cos(2 * Math.PI * x2));
17             return suma;
18         }
19
20         static void Main(string[] args)
21         {
22             int N = 11;
23             int M = 11;
24             string[] lines = new string[N*M];
25             string line;
26             int start = -2;
27             int stop = 2;
28             double step = 0.4;
29             double x = start;
30             double y = start;
31             for (int i = 0; i < N; i++)
32             {
33                 x = start + i * step;
34                 for (int j = 0; j < M; j++)
35                 {
36                     y = start + j * step;
37                     line = Convert.ToString(x) + ";" + Convert.ToString(y) + ";" +
38                         Convert.ToString(Rastrigin3D(x, y));
39                     lines[i*N+j] = line;
40                     line = "";
41                 }
42             }
43             using (System.IO.StreamWriter file = new System.IO.StreamWriter
44                 ("DataSet.txt"))
45             {
46                 foreach (string l in lines)
47                 {
48                     // If the line doesn't contain the word 'Second', write the
49                     // line to the file.
50                     //if (!l.Contains("Second"))
51                     {
52                         file.WriteLine(l);
53                     }
54                 }
55             }
56         }
57     }
58 }
```

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54  
55     }  
56 }  
57 }  
58
```