

```

1 # Galton-deszka (animáció)
2
3 import turtle
4 import random
5
6 darab = 29
7
8 turtle.speed(0)
9 turtle.tracer(0,0)
10 turtle.hideturtle()
11 turtle.colormode(255)
12 turtle.bgcolor(20,20,20)
13 turtle.setup(860, 600)
14
15 golyok = [turtle.Turtle() for i in range(darab)]
16 szamlalo = [0]*13
17 golyokszama = 1000
18 x, y = 0, 250
19 for t in golyok:
20     t.up()
21     y = y + 30
22     r = random.randint(50,250)
23     g = random.randint(50,250)
24     b = random.randint(50,250)
25     t.color(r, g, b)
26     t.setposition(x, y)
27     t.shape("circle")
28     t.seth(270)
29     t.shapesize(0.5)
30     t.showturtle()
31 turtle.update()
32
33 t=30
34 for j in range (0, 13, 1):
35     for i in range(-j*t,j*t,2*t):
36         turtle.penup()
37         turtle.setpos(i+t,257-j*t)
38         turtle.pendown()
39         turtle.dot(4,"white")
40 turtle.pencolor("white")
41 turtle.pensize(3)
42 for i in range(-390,400,60):
43     turtle.penup()
44     turtle.setpos(i,-110)
45     turtle.pendown()
46     turtle.setpos(i,-250)
47 turtle.pensize(20)
48 turtle.penup()
49 turtle.setpos(-390,-250)
50 turtle.pendown()
51 turtle.setpos(390,-250)
52
53 while golyokszama > 0:
54     for t in golyok:
55         t.forward(2)
56         if int(t.ycor()) % 30 == 0 and int(t.ycor())<250 and int(t.ycor())>-200:
57             t.seth(random.choice([225,315]))
58         if t.ycor() < -120:
59             t.seth(270)
60         if t.ycor() < -220:
61             tarolo = int((t.xcor()-20)//60+7)
62             szamlalo[tarolo]=szamlalo[tarolo]+1
63             golyokszama = golyokszama -1
64             turtle.title(str(golyokszama))
65             t.setpos(0, 500)
66             if golyokszama < darab:
67                 t.hideturtle()
68     turtle.update()

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69 |
70 | turtle.pensize(40)
71 | style = ('Arial', 10, 'bold')
72 |
73 | for i, ertek in enumerate(szamlalo):
74 |     turtle.pencolor("red")
75 |     turtle.penup()
76 |     turtle.setpos(-360 + i * 60, - 240 )
77 |     turtle.pendown()
78 |     turtle.setpos(-360 + i * 60, - 240 + ertek * 2)
79 |     turtle.pencolor("white")
80 |     turtle.write(ertek, font=style, align="center")
81 |
82 | turtle.update()
83 | turtle.exitonclick()
84 |
85 | # *****2023.02.12.*****Miskei Vendel*****www.miskei.hu*****
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