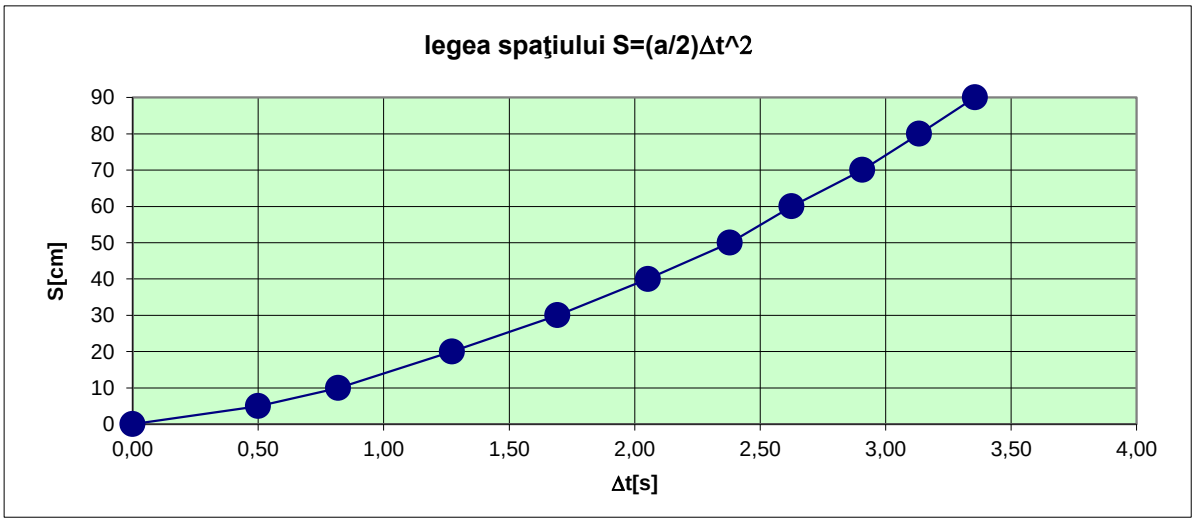
Studiul mișcării rectilinii uniform accelerate (mrua)
cu ajutorul liniei cu pernă de aer
- tabele de valori și reprezentări grafice, pentru verificarea legilor mișcării -

Autori: elevii clasei IXE, 2016
Profesor: Titu Mastan

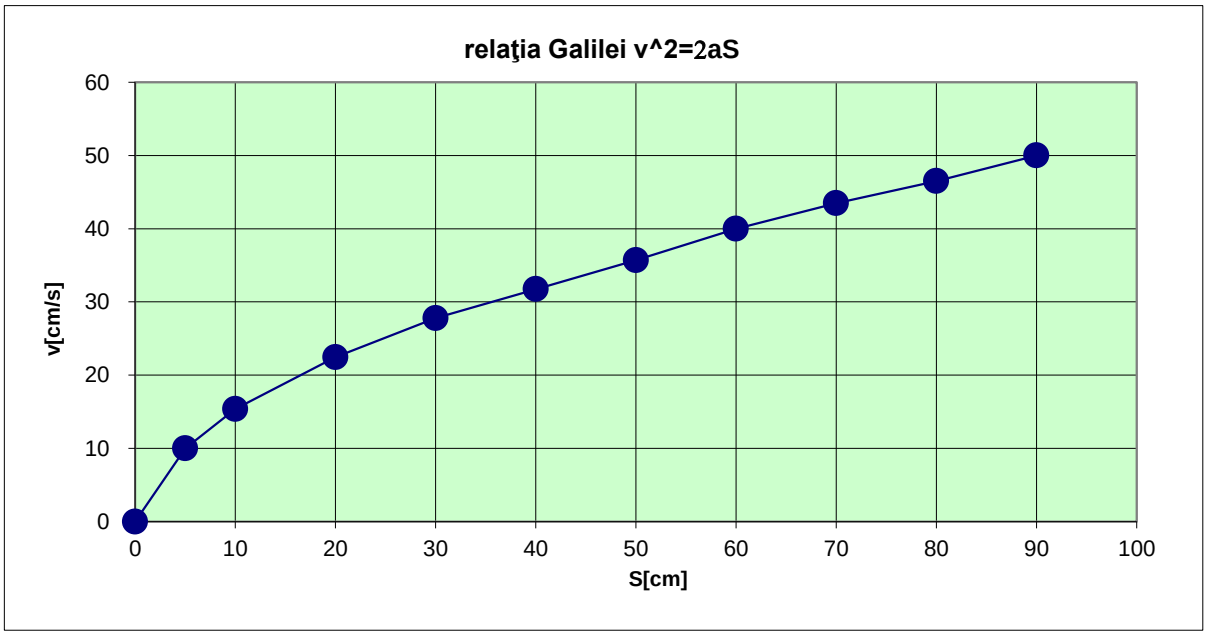
1. Verificarea legii spațiului

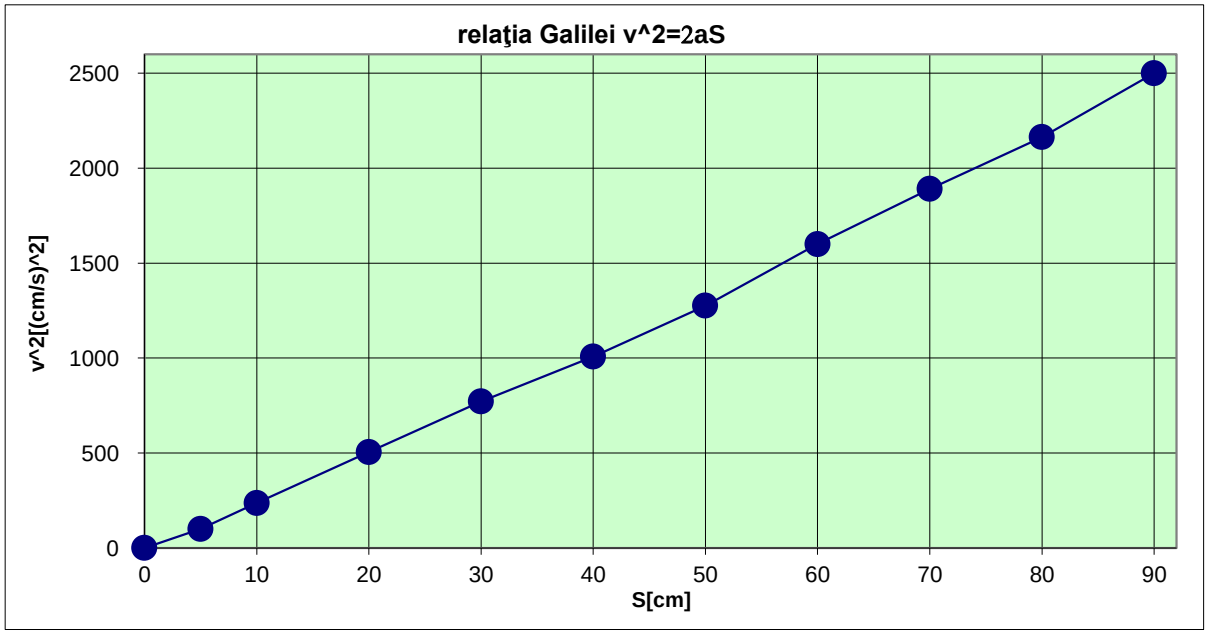
nr crt	x0	x	S	Δt
	cm	cm	cm	s
1	25	25	0	0,000
2	25	30	5	0,500
3	25	35	10	0,819
4	25	45	20	1,272
5	25	55	30	1,693
6	25	65	40	2,053
7	25	75	50	2,380
8	25	85	60	2,625
9	25	95	70	2,907
10	25	105	80	3,134
11	25	115	90	3,356



1. Verificarea relației lui Galilei

nr crt	x0	x	S	Δt	d	v	v^2
	cm	cm	cm	s	cm	cm/s	(cm/s)^2
1	25	25	0	0,000	2	0,000	0,000
2	25	30	5	0,200	2	10,000	100,000
3	25	35	10	0,130	2	15,385	236,686
4	25	45	20	0,089	2	22,472	504,987
5	25	55	30	0,072	2	27,778	771,605
6	25	65	40	0,063	2	31,746	1007,811
7	25	75	50	0,056	2	35,714	1275,510
8	25	85	60	0,050	2	40,000	1600,000
9	25	95	70	0,046	2	43,478	1890,359
10	25	105	80	0,043	2	46,512	2163,332
11	25	115	90	0,040	2	50,000	2500,000


relaţia Galilei v^2=2aS
v[cm/s]
S[cm]
0
10
20
30
40
50
60
70
80
90
100


relaţia Galilei v^2=2aS
v^2[(cm/s)^2]
S[cm]
0
500
1000
1500
2000
2500
10
20
30
40
50
60
70
80
90