0ml

$t(s)$	$x(cm)$	$\Delta x(cm)$	$v(cm/s)$	$a(cm/s^2)$
0.00	5.2	0.0	-	-
0.08	5.3	0.1	1.25	-
0.16	5.4	0.2	1.25	0.00
0.24	6.0	0.8	6.88	70.31
0.32	8.5	3.3	31.88	312.50
0.40	9.5	4.3	11.88	-250.00
0.48	13.5	8.3	50.63	484.38

10ml

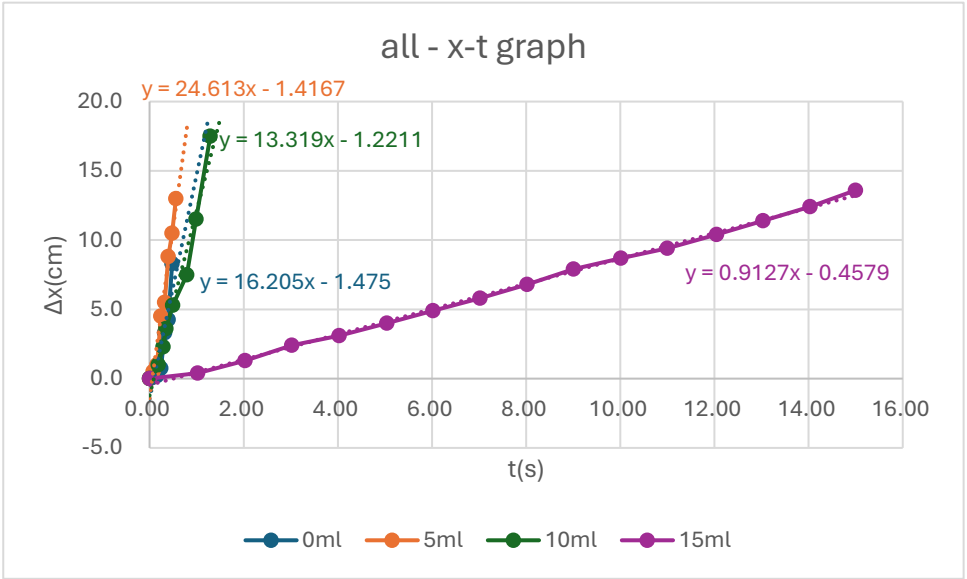
$t(s)$	$x(cm)$	$\Delta x(cm)$	$v(cm/s)$	$a(cm/s^2)$
0.00	6.0	0.0	-	-
0.19	7.0	1.0	5.26	-
0.29	8.3	2.3	13.00	77.37
0.35	9.6	3.6	21.67	144.44
0.49	11.3	5.3	12.14	-68.03
0.79	13.5	7.5	7.33	-16.03
0.99	17.5	11.5	20.00	63.33
1.29	23.5	17.5	20.00	0.00

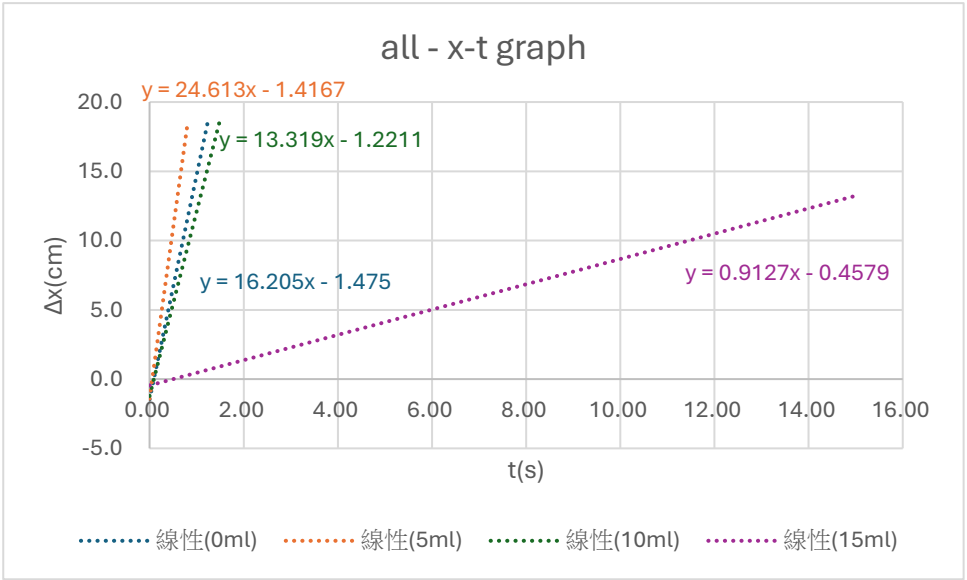
5ml

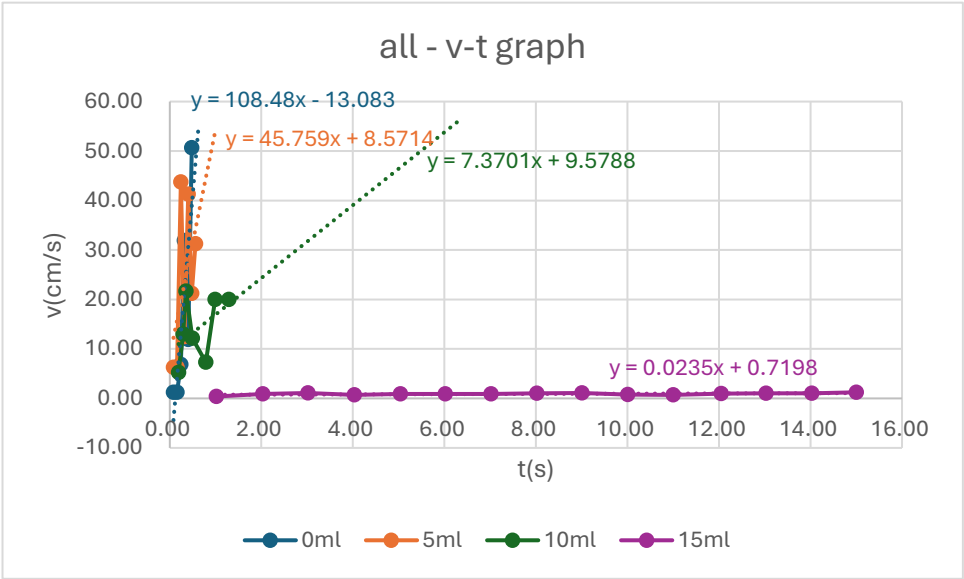
$t(s)$	$x(cm)$	$\Delta x(cm)$	$v(cm/s)$	$a(cm/s^2)$
0.00	5.5	0.0	-	-
0.08	6.0	0.5	6.25	-
0.16	6.5	1.0	6.25	0.00
0.24	10.0	4.5	43.75	468.75
0.32	11.0	5.5	12.50	-390.63
0.40	14.3	8.8	41.25	359.38
0.48	16.0	10.5	21.25	-250.00
0.56	18.5	13.0	31.25	125.00

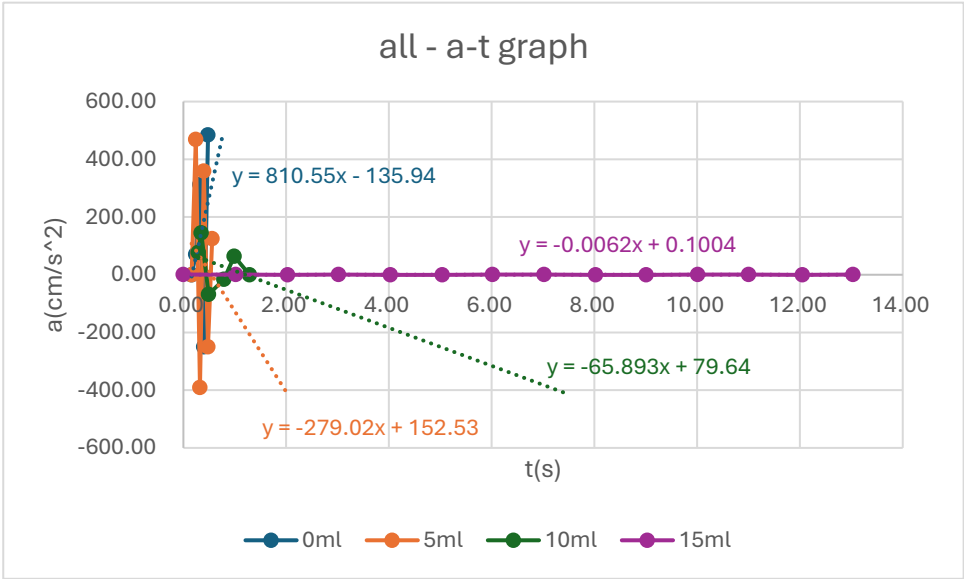
15ml

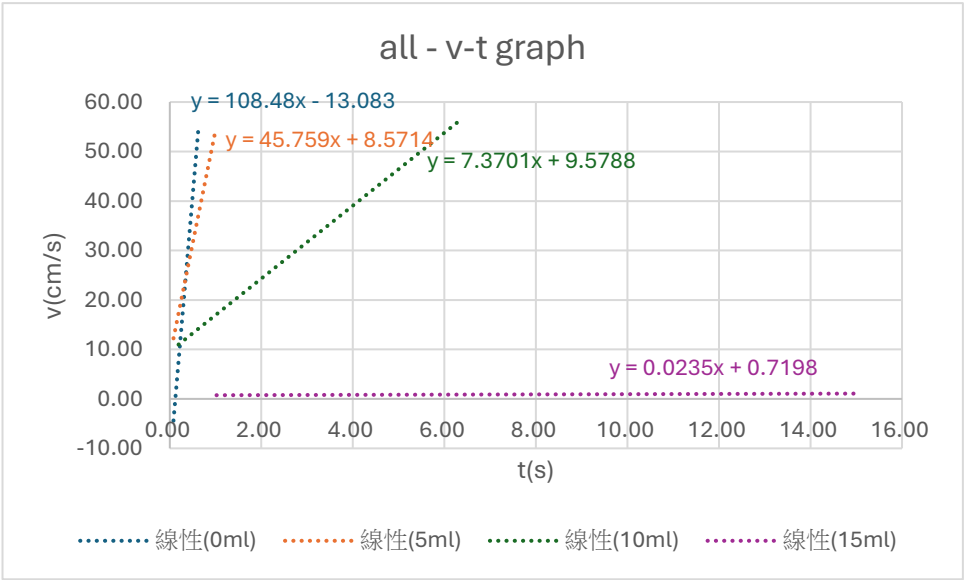
$t(s)$	$x(cm)$	$\Delta x(cm)$	$v(cm/s)$	$a(cm/s^2)$
0.00	6.6	0.0	-	-
1.02	7.0	0.4	0.39	-
2.03	7.9	1.3	0.89	0.49
3.02	9.0	2.4	1.11	0.22
4.03	9.7	3.1	0.69	-0.41
5.04	10.6	4.0	0.89	0.20
6.02	11.5	4.9	0.92	0.03
7.02	12.4	5.8	0.90	-0.02
8.02	13.4	6.8	1.00	0.10
9.01	14.5	7.9	1.11	0.11
10.01	15.3	8.7	0.80	-0.31
11.00	16.0	9.4	0.71	-0.09
12.05	17.0	10.4	0.95	0.23
13.03	18.0	11.4	1.02	0.07
14.03	19.0	12.4	1.00	-0.02
15.00	20.2	13.6	1.24	0.24

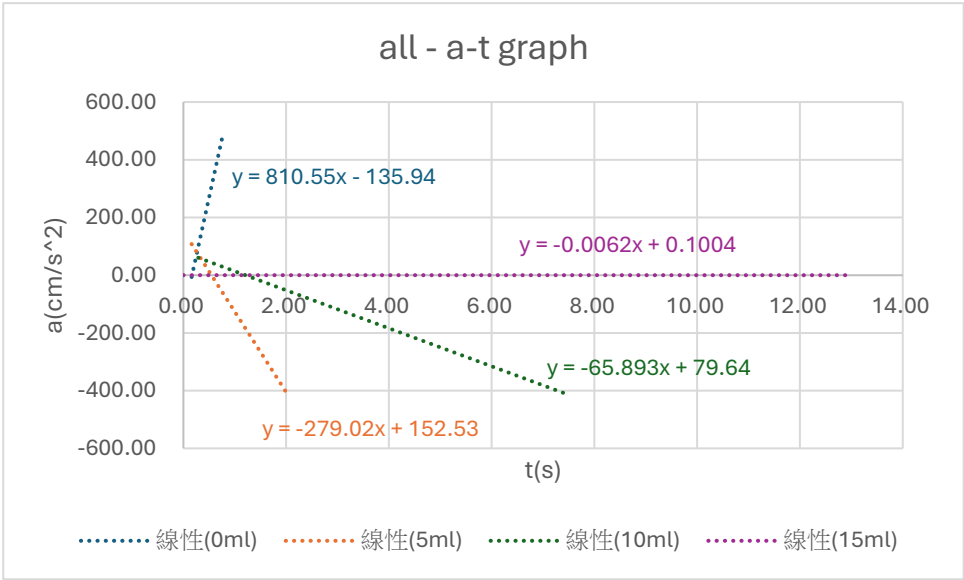


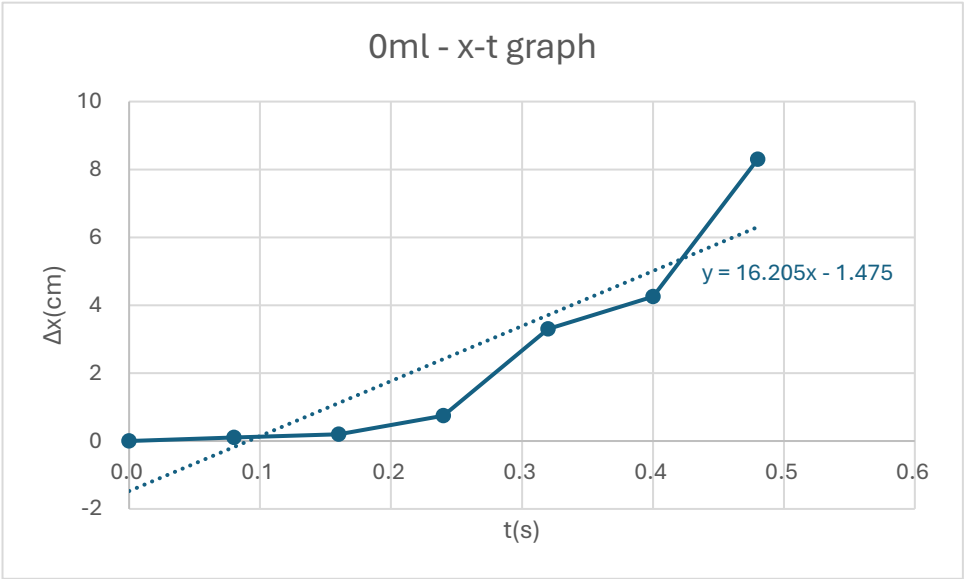


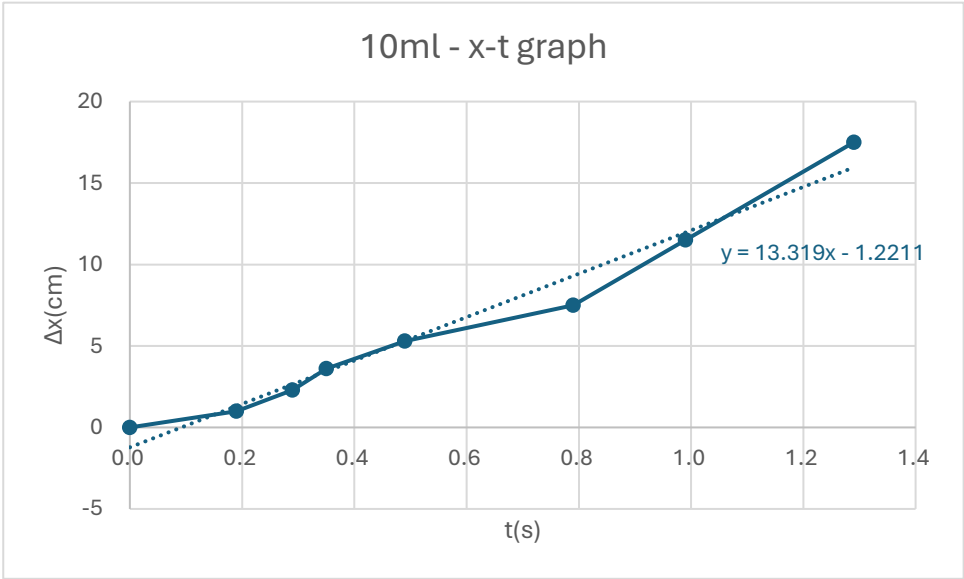

all - v-t graph
y = 108.48x - 13.083
y = 45.759x + 8.5714
y = 7.3701x + 9.5788
y = 0.0235x + 0.7198
v(cm/s)
t(s)
0ml
5ml
10ml
15ml

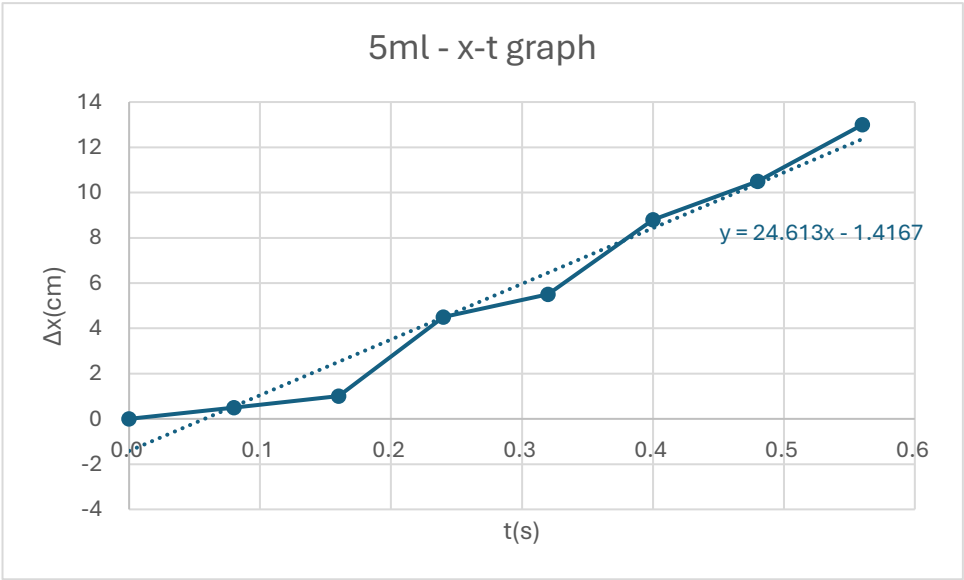

all - a-t graph
y = 810.55x - 135.94
y = -0.0062x + 0.1004
y = -65.893x + 79.64
y = -279.02x + 152.53
a(cm/s^2)
t(s)
0ml
5ml
10ml
15ml

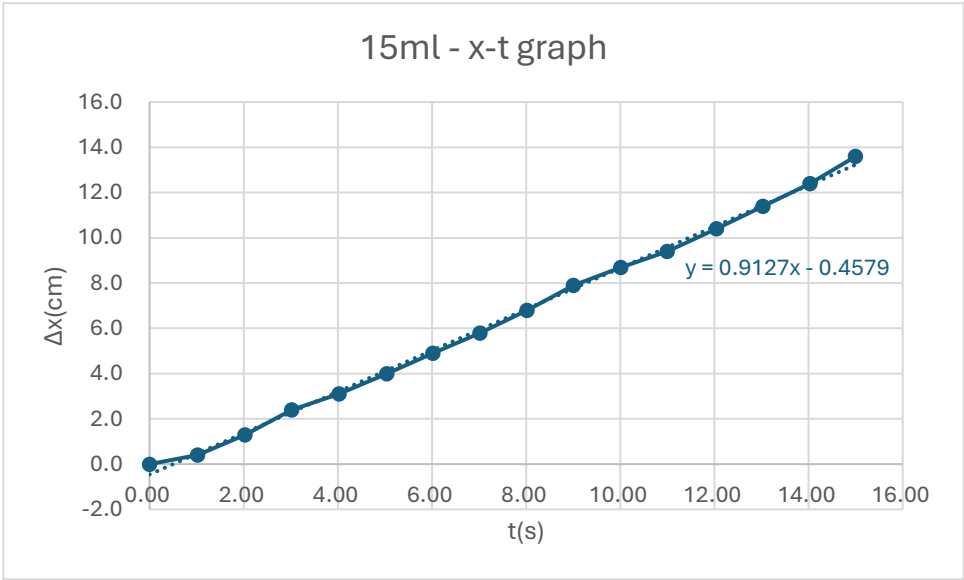

all - v-t graph
y = 108.48x - 13.083
y = 45.759x + 8.5714
y = 7.3701x + 9.5788
y = 0.0235x + 0.7198
v(cm/s)
t(s)
線性(0ml)
線性(5ml)
線性(10ml)
線性(15ml)

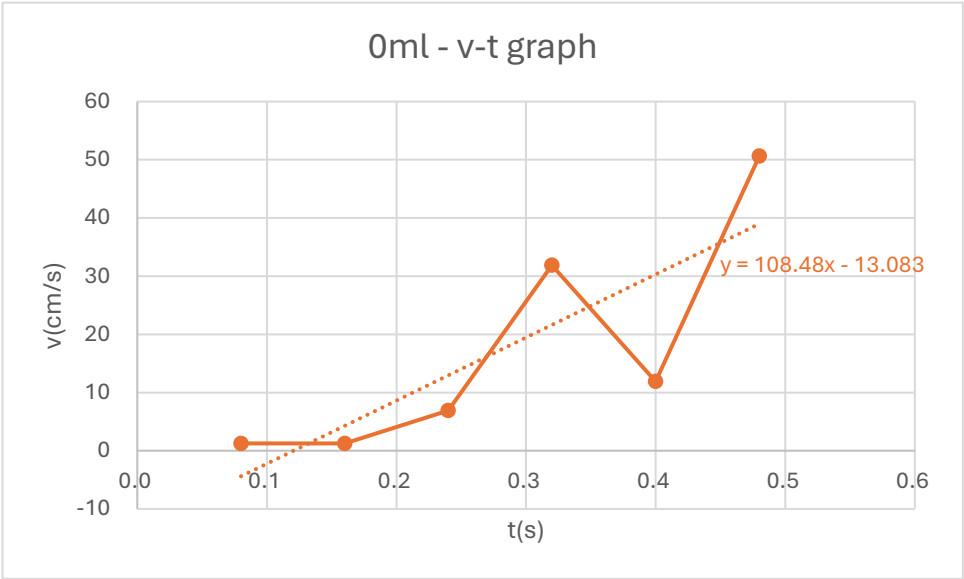

all - a-t graph
y = 810.55x - 135.94
y = -0.0062x + 0.1004
y = -65.893x + 79.64
y = -279.02x + 152.53
a(cm/s^2)
t(s)
線性(0ml)
線性(5ml)
線性(10ml)
線性(15ml)

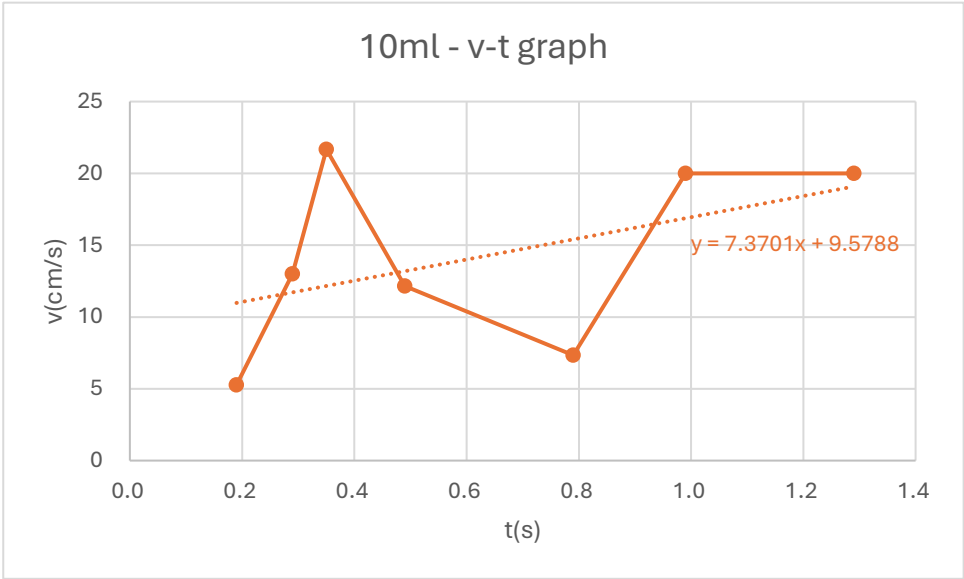

0ml - x-t graph
Δx(cm)
t(s)
y = 16.205x - 1.475
10
8
6
4
2
0
-2
0.0
0.1
0.2
0.3
0.4
0.5
0.6

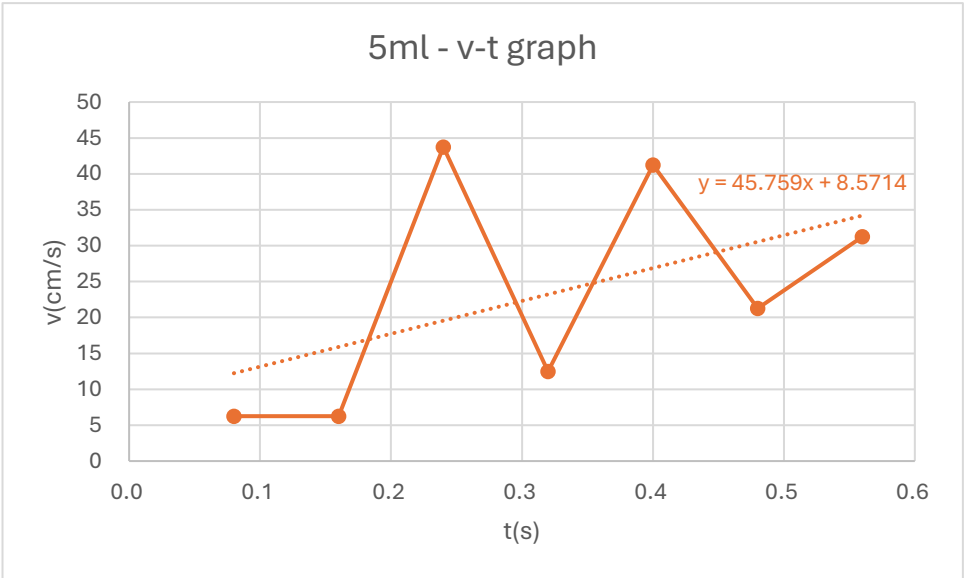

10ml - x-t graph
Δx(cm)
t(s)
y = 13.319x - 1.2211
20
15
10
5
0
-5
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4

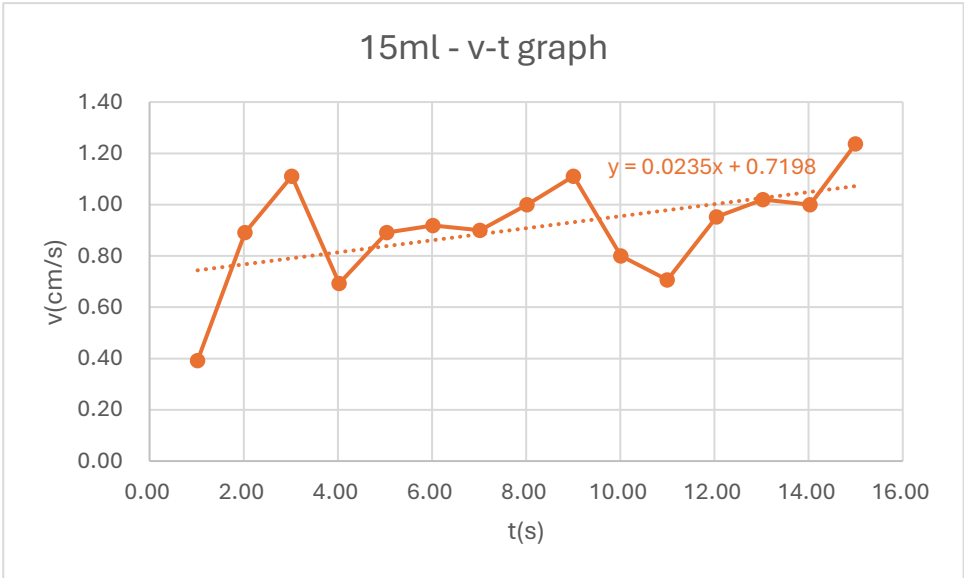

5ml - x-t graph
Δx(cm)
t(s)
y = 24.613x - 1.4167
14
12
10
8
6
4
2
0
-2
-4
0.0
0.1
0.2
0.3
0.4
0.5
0.6

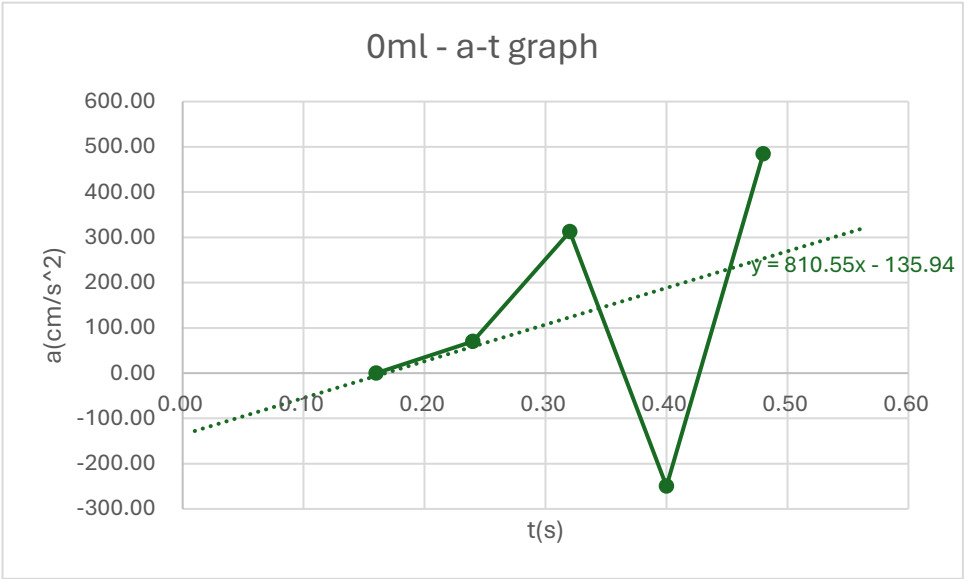

15ml - x-t graph
Δx(cm)
t(s)
y = 0.9127x - 0.4579
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
-2.0
0.00
2.00
4.00
6.00
8.00
10.00
12.00
14.00
16.00

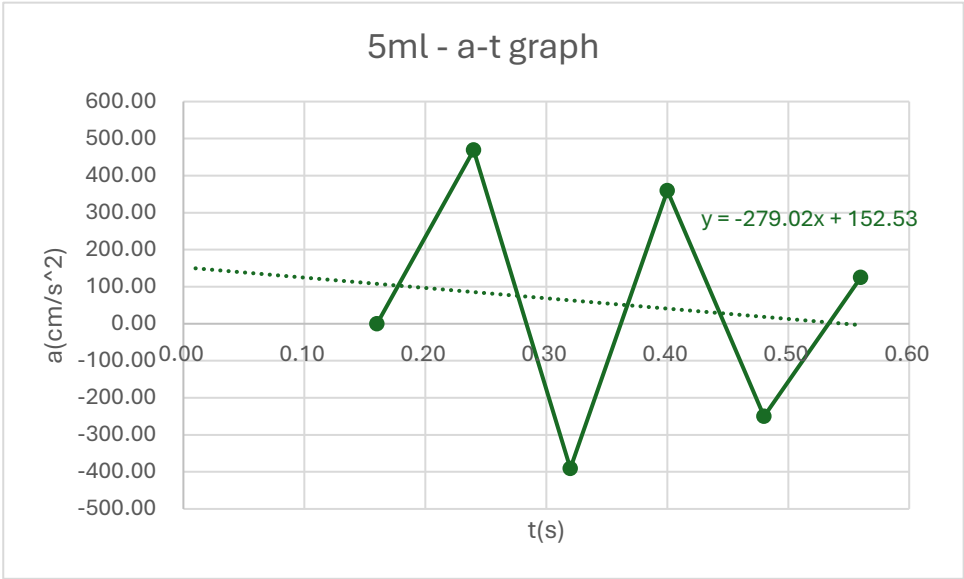

0ml - v-t graph
v(cm/s)
t(s)
y = 108.48x - 13.083
60
50
40
30
20
10
0
-10
0.0
0.1
0.2
0.3
0.4
0.5
0.6

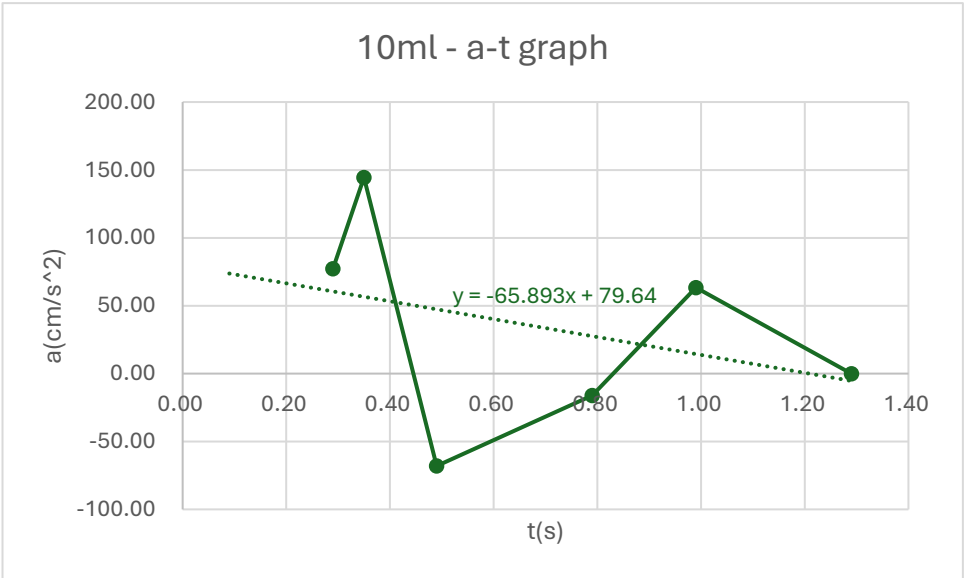

10ml - v-t graph
v(cm/s)
t(s)
y = 7.3701x + 9.5788
25
20
15
10
5
0
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4

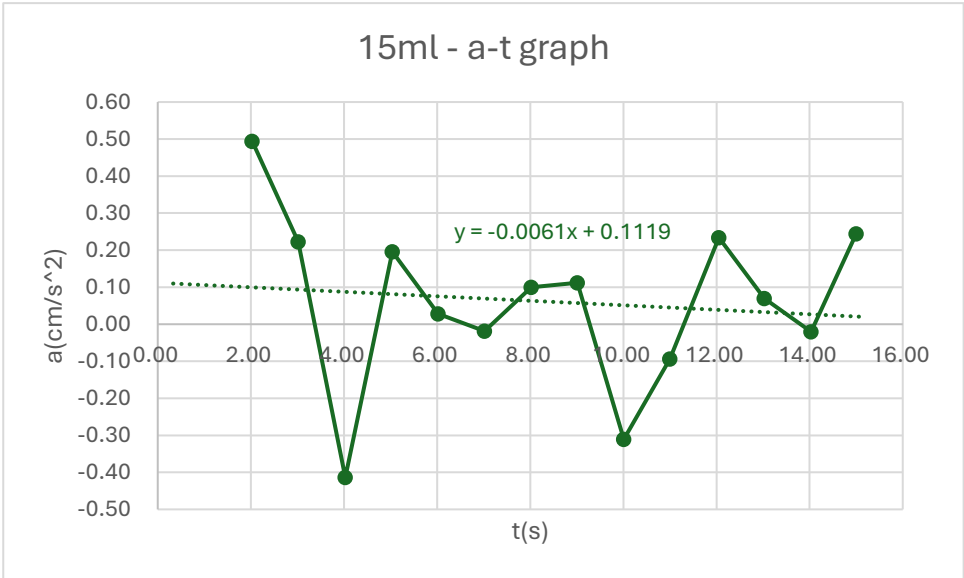

5ml - v-t graph
v(cm/s)
t(s)
y = 45.759x + 8.5714
50
45
40
35
30
25
20
15
10
5
0
0.0
0.1
0.2
0.3
0.4
0.5
0.6


15ml - v-t graph
v(cm/s)
t(s)
y = 0.0235x + 0.7198
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0.00
2.00
4.00
6.00
8.00
10.00
12.00
14.00
16.00


0ml - a-t graph
600.00
500.00
400.00
300.00
200.00
100.00
0.00
-100.00
-200.00
-300.00
a(cm/s^2)
0.00
0.10
0.20
0.30
0.40
0.50
0.60
t(s)
y = 810.55x - 135.94


5ml - a-t graph
600.00
500.00
400.00
300.00
200.00
100.00
0.00
-100.00
-200.00
-300.00
-400.00
-500.00
a(cm/s^2)
0.00
0.10
0.20
0.30
0.40
0.50
0.60
t(s)
y = -279.02x + 152.53


10ml - a-t graph
200.00
150.00
100.00
50.00
0.00
-50.00
-100.00
a(cm/s^2)
0.00
0.20
0.40
0.60
0.80
1.00
1.20
1.40
t(s)
y = -65.893x + 79.64


15ml - a-t graph
0.60
0.50
0.40
0.30
0.20
0.10
0.00
-0.10
-0.20
-0.30
-0.40
-0.50
a(cm/s^2)
0.00
2.00
4.00
6.00
8.00
10.00
12.00
14.00
16.00
t(s)
y = -0.0061x + 0.1119