

FACTORS THAT AFFECT ACCELERATION LAB

**Period 1**

PURPOSE: TO INVESTIGATE HOW THE FORCE PULLING AN OBJECT AFFECTS THE ACC.  
 AFFECTS ITS ACC. AND HOW MASSIVE THE OBJECT BEING PULLED  
 PROCEDURE:

DATA TABLE:

trial	x-axis 1st		measured	measured	measured	measured	measured	calculated	calculated	calculated	y-axis both graphs
	F (washers)	s flag	m	s track	m	mass g	t 1 s	gate 1	t 2 s	gate 2	V1=s flag/t1 V2=s flag/t2 $a=(v_2^*v_2-v_1^*v_1)/2s$
1	1	0.025	0.740		0.0	0.0642	0.0270				
2	2	0.025	0.740		0.0	0.0483	0.0165				
3	3	0.025	0.740		0.0	0.0432	0.0143				
4	4	0.025	0.740		0.0	0.0361	0.0127				
5	5	0.025	0.740		0.0	0.0342	0.0117				
6	6	0.025	0.740		0.0	0.0377	0.0111				
7	7	0.025	0.740		0.0	0.0307	0.0105				
8	8	0.025	0.740		0.0	0.0331	0.0102				
9	9	0.025	0.740		0.0	0.0305	0.0090				
10	10	0.025	0.740		0.0	0.0281	0.0096				
11	10	0.025	0.740		50.0	0.0325	0.0108				
12	10	0.025	0.740		100.0	0.0351	0.0115				
13	10	0.025	0.740		150.0	0.0375	0.0128				
14	10	0.025	0.740		200.0	0.0390	0.0139				
15	10	0.025	0.740		250.0	0.0420	0.0148				
16	10	0.025	0.740		300.0	0.0448	0.0156				
17	10	0.025	0.740		350.0	0.0488	0.0163				
18	10	0.025	0.740		400.0	0.0731	0.0188				
19	10	0.025	0.740		450.0	0.0576	0.0202				
20	10	0.025	0.740		500.0	0.0638	0.0194				