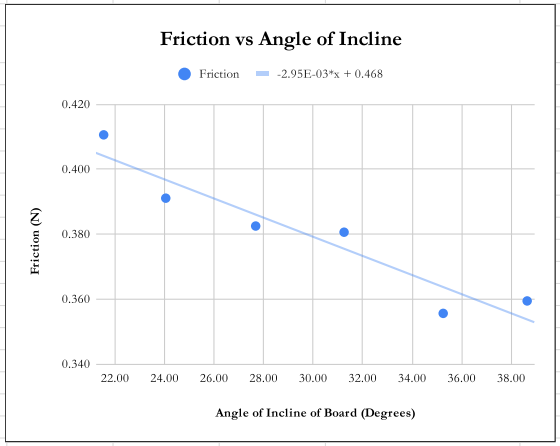
Height of board (cm)	Angle of incline (deg)	Friction	Trial 1 (acceleration)	Trial 2	Trial 3	Average:	u	Ff	Fg along ramp(N)	Fn (Fg perpendicular) (N)	Mass of cart (kg)	length of board	Height 1 txtbok (cm)	
26.4	21.54	0.411	-0.4115	-0.4525	-0.5779	0.4806	0.3420	0.4106	0.4739	1.200508992	0.1317	71.9	3.8	
29.3	24.05	0.391	-1.006	-1.041	-1.025	1.0240	0.3318	0.3911	0.5260	1.178631425				
33.4	27.68	0.383	-1.647	-1.63	-1.667	1.6480	0.3347	0.3825	0.5996	1.142950733	Fg (N)			
37.3	31.25	0.381	-2.179	-2.186	-2.217	2.1940	0.3449	0.3806	0.6696	1.103398347	1.29066			
41.5	35.25	0.356	-2.889	-3.051	-2.929	2.9563	0.3374	0.3556	0.7450	1.053965219				
44.9	38.64	0.359	-3.474	-3.437	-3.261	3.3907	0.3566	0.3594	0.8060	1.008059725				
							0.3412							

				Fg sin theta - u Fg cos theta = ma										
	Angle of incline (deg)	μ	Ff	(Fg sin theta-Ma) / Fg cos theta = u							Remains Constant	Cos Decreases	Remains Constant	Decreases
	21.54	0.3420	0.4106	Ff= FN*u							Fg *	Cos Theta	* u =	Ff
	24.05	0.3318	0.3911	Ff= Fg perpendicular*u								Theta increases		
	27.68	0.3347	0.3825											
	31.25	0.3449	0.3806											
	35.25	0.3374	0.3556											
	38.64	0.3566	0.3594											



Mass of block:
0.1317 kg
Length of board:
71.9 cm