PHYSICS LAB – ANSWER KEY
Hooke's Law - Computer Simulation

DATA TABLE

Mass m (g)	Force F (N)	Stretch x (cm)	Stretch x (m)
0	0	0	0
100	0.98	1.6	0.016
600	5.88	10.1	0.101
1100	10.78	18.5	0.185
1600	15.68	27.0	0.270
2100	20.58	35.4	0.354
2200	21.56	37.1	0.371
2300	22.54	38.7	0.387

2.16418

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Hooke's Law Lab - Force versus Stretch
Force, F (N)
Stretch, x (m)
0
5
10
15
20
25
0.0
0.1
0.2
0.3
0.4
Slope = $\frac{20 - 5}{0.34 - 0.08} = 58 \ \frac{N}{m}$ = SpringConstant
Equation: $F = (58 \ \frac{N}{m})\, x$