

5.1.3 # 28-39 (skip 30)

5-28 a.) Rebound ratio ≈ 0.46

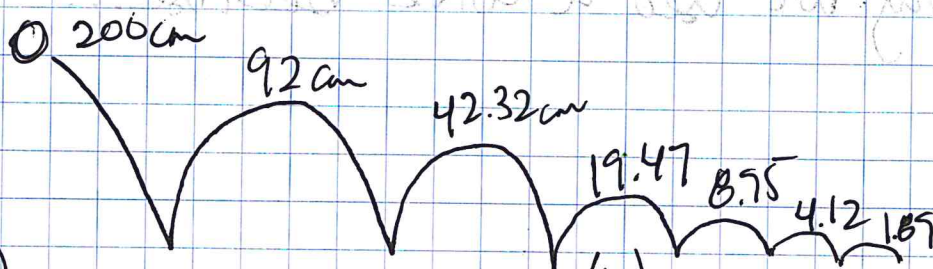
b.) No, the drop height does not affect the ratio.

c.) (D.H.) Rebound Ratio = $\frac{\text{Rebound Height}}{\text{Drop Height}}$ (D.H.)

Rebound Height = Rebound Ratio (Drop Height)

$$R.H. = 0.46 (D.H.)$$

5-29 a.)



b.)

(x) Bounce #	work	(y) Rebound Height (cm)
0	—	200
1	$0.46(200)$	92
2	$0.46(92)$	42.32
3	$0.46(42.32)$	19.47
4	$0.46(19.47)$	8.95
5	$0.46(8.95)$	4.12
6	$0.46(4.12)$	1.89

e.) Do not connect points b/c there is no 1.5 bounce (Discrete)

c.) Independent - Bounce #
Dependent - R.H.

5-31 a.) The graph from yesterday was linear and we used equation $y = m \cdot x + b$.

Today our graph is exponential decay and we need to use a different equation. $y = a \cdot b^x$

