Find “K” of a spring.

Add known weight to a spring then measure the displacement of said spring. Using scatter plot, graph Weight (mg) vs. Displacement (m).

|  |  |
| --- | --- |
| mg (newtons) | x (m) |
| 0 | 0.185 |
| 1.47 | 0.215 |
| 1.666 | 0.222 |
| 1.862 | 0.231 |
| 2.058 | 0.237 |
| 2.254 | 0.245 |
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F = -Kx

mg = -(K) (x)

 Y = (M) (x)

Therefore; K equals the Slope of Line that shows the relationship of weight vs. displacement.

Equation of Graph above: y = 37.542x - 6.8013

 K = 37.542