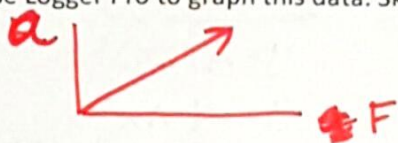


Acceleration (m/s <sup>2</sup> )	x-axis	Force (N)	y-axis
2.02		5.01	
4.10		10.12	
6.06		15.13	
8.17		20.53	
10.00		24.97	

Use Logger Pro to graph this data. Sketch the graph below:



The dependent variable is:

acceleration

The independent variable is:

Force

The algebraic representation is:

$$a = AF$$

The proportionality relationship is:

acceleration is proportional to F

Force acceleration  
If surface area is doubled, velocity is:

Force accel. → doubled

If surface area is halved, velocity is:

Force accel. → halved

As voltage increases, current ...

Force accel. → increases

Solve for the units of the constant:

$$a = AF$$

$$\frac{a}{F} = A$$

$$\frac{\frac{m}{s^2}}{N} = A$$

$$\frac{\frac{m}{s^2}}{kg \cdot \frac{m}{s^2}} = A$$

$$\frac{1}{kg} = A$$