

Furlong Sheet

9. 2.8 ha  $\rightarrow$  ?  $\text{ft}^2$

$$x \text{ ft}^2 = \underbrace{2.8}_{\text{2sb}} \text{ ha} \left( \frac{2.47 \text{ acre}}{1 \text{ ha}} \right) \left( \frac{4840 \text{ yd}^2}{1 \text{ acre}} \right) \left( \frac{3 \text{ ft}}{1 \text{ yd}} \right)^2$$

or  $\left( \frac{3 \text{ ft}}{1 \text{ yd}} \right) \left( \frac{3 \text{ ft}}{1 \text{ yd}} \right)$

$$x \text{ ft}^2 = 301260.96 \text{ ft}^2$$

$$(3.0 \times 10^5 \text{ ft}^2)$$

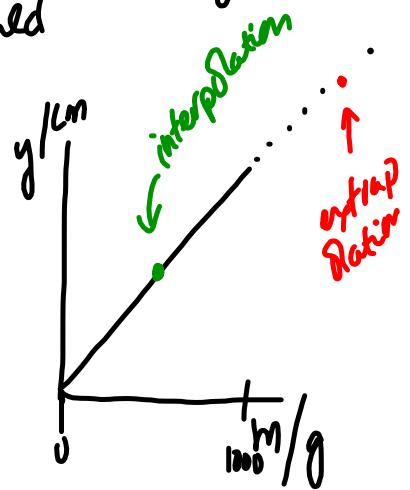
or  $\left( \frac{9 \text{ ft}^2}{1 \text{ yd}^2} \right)$

10. Convert 0.1 acres to  $\text{m}^2$ :

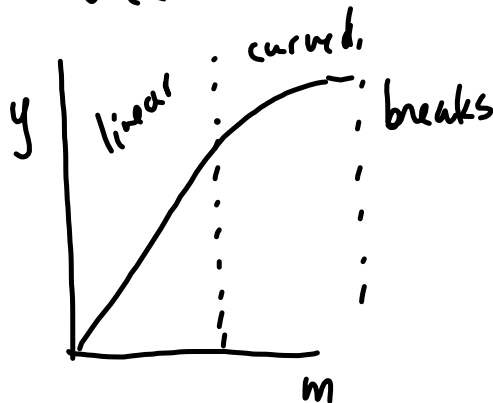
$$x \text{ m}^2 = 0.1 \text{ acre} \left( \frac{4840 \text{ yd}^2}{1 \text{ acre}} \right) \left( \frac{3 \text{ ft}}{1 \text{ yd}} \right)^2 \left( \frac{12 \text{ in}}{1 \text{ ft}} \right)^2 \left( \frac{2.54 \text{ cm}}{1 \text{ in}} \right)^2 \left( \frac{1 \text{ m}}{100 \text{ cm}} \right)^2$$

$$\frac{(0.1)(4840)(3)^2(12)^2(2.54)^2}{(100)^2}$$

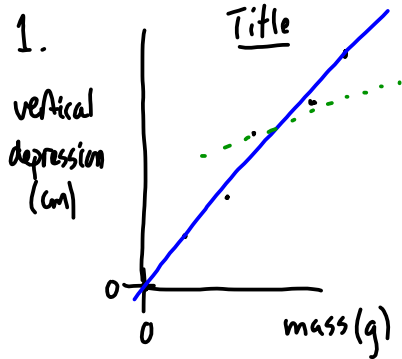
Interpolation - make a prediction within the range of the data collected. You could use the graph or the equation to interpolate. It is a fairly reliable type of prediction.



Extrapolation - make a prediction outside the range of data. You could use the graph or the equation. Extrapolation is not reliable as the trend of the data may not continue. Use caution!

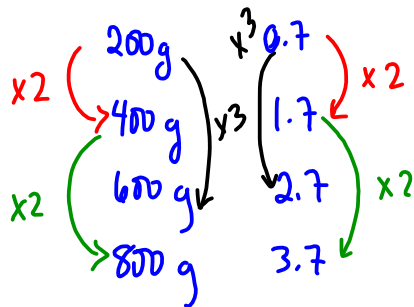


Hooké's Law Lab



- linear graph
  - direct relationship (linear and y-int is 0)
- $y \propto m$

"y is proportional to m"  
"y varies directly with m"



When the factors match for each variable  $\rightarrow$  direct relationship.

2. 850g  $\rightarrow$  look up on graph interpolation

$$\% \text{ error} = \frac{\text{exp} - \text{true}}{\text{true}} \times 100\%$$

3. Pick points on your LOBF  
Do not use data points unless they fall on your line of best fit.

$$y = mx + b$$

$$m = \frac{\Delta y}{\Delta x} = \frac{y_2 - y_1}{x_2 - x_1}$$

Write final equation:

$$y = 0.021x + 0$$

(use the coordinates DO NOT COUNT SQUARES)