Bajay's Classspad Guide

> ⓘ **Remember you can put functions within a function!**

- **General Functions:**
  - solve(equation, variable)
    - keyboard → math 1 → solve
    - Will solve for the variable from the equation
    - Adding (solve() **| x = y**) means x will be replaced with y
      - i.e: solve given that x = y

- **Vector Functions**
  - Finding unit vector → e.g: $\hat{a}$ if $a = \begin{bmatrix} x \\ y \end{bmatrix}$
    - unitV($\begin{bmatrix} x \\ y \end{bmatrix}$)
      - action → vector → unitV
  - Finding magnitude of $a + b$ → e.g: $|\begin{bmatrix} i \\ j \end{bmatrix} + \begin{bmatrix} x \\ y \end{bmatrix}|$
    - norm($\begin{bmatrix} i + x \\ j + y \end{bmatrix}$)
      - action → vector → norm
  - Finding angle between two vectors
    - angle($\begin{bmatrix} i \\ j \end{bmatrix}$, $\begin{bmatrix} x \\ y \end{bmatrix}$)
      - separate vectors with a comma
      - action → vector → angle
  - Solving dot product
    - dotP($\begin{bmatrix} i \\ j \end{bmatrix}$, $\begin{bmatrix} x \\ y \end{bmatrix}$)
      - action → vector → dotP

- **Other Important Stuff**
  - The factorial (!) button is found under advanced tab in the second page of the keyboard
  - If you need to write something as $\pm\sqrt{x}$, write out the equation twice
    - One for positive surd x and one for negative surd x