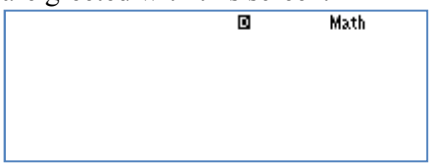
Mode settings on the FX82AU+

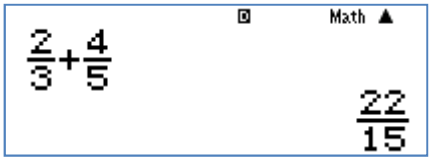
Getting to know how your calculator works and how you can change the format of either the inputs or outputs.

Turning on the **FX82AU c**alculator on having reset the calculator to the manufacturer's initial specifications you are greeted with this screen.

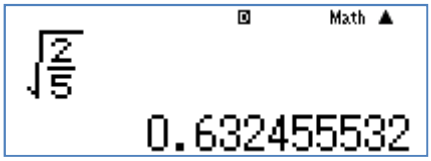


The '**D**' represents the angle calculations are in degrees and the '**Math**' represents the display on the screen with the input and outputs similar to textbook text.

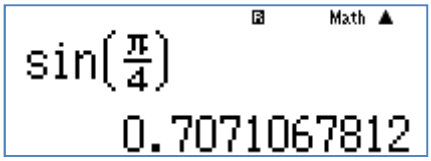
For example: $^{2}/_{3} + {}^{4}/_{5} =$



$\sqrt{}^{2}/_{5} =$

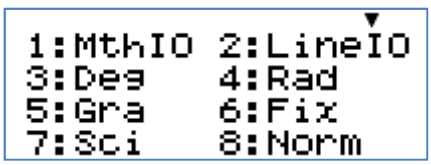


sin 45 =



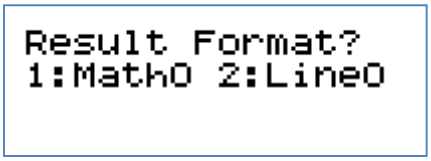
This is called **MathIO**.

If you press **SHIFT SETUP,** the screen below is shown.

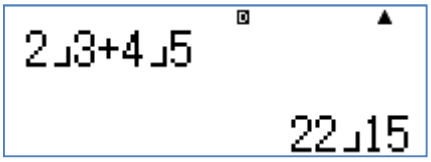


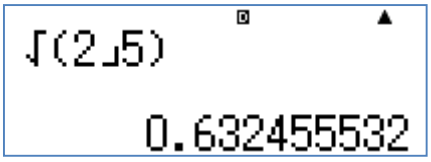
By pressing the digits 1~8 on the keyboard you can change the settings of the calculator.

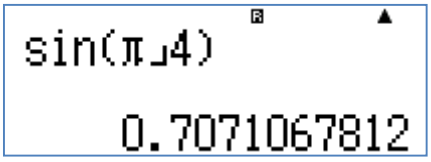
Initial settings is 1: By pressing 1 you can change the result or output line to either the initial setting 1: **Math0** (initial setting) or change to a **Line0** output by pressing 2.



2: LineIO This setting is where the display on the screen is on one line for both input and output. Examples are illustrated in the next screen captures.







3: Degrees

4: Radians

5: Gradients

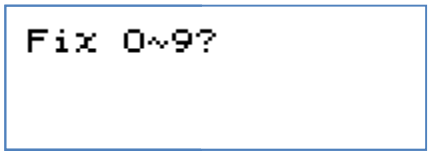
These three display modes are all related to angle calculations.

The following table shows the conversion of some common angles between the three angle measurements.

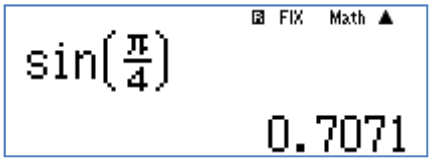
Units	Values							
Turns	0	$^1/_{12}$	$^1/_8$	$^1/_6$	$^1/_4$	$^1/_2$	$^3/_4$	1
Degrees	0°	30°	45°	60°	90°	180°	270°	360°
Radians	0	$\frac{\pi}{6}$	$\frac{\pi}{4}$	$\frac{\pi}{3}$	$\frac{\pi}{2}$	π	$\frac{3\pi}{2}$	2π
Gradients	0^g	$\frac{100^g}{3}$	50^g	$\frac{200^g}{3}$	100^g	200^g	300^g	400^g

By changing to either of the 3 angular measures, the display on the top of the screen will show either a '**D**' or '**R**' or '**G**'.

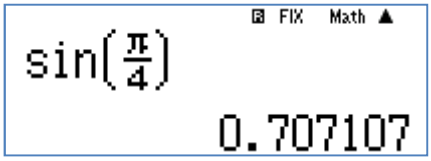
6:Fix This setting mode allows you to give the results of your calculations from 0 decimal places to 9 decimal places. The calculator rounds the last digit in the answer correctly, that is 0~4 are rounded down and 5~9 are rounded up.



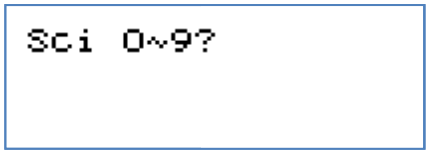
By selecting **[0]** you will record all of the answers calculated correct to the nearest whole unit. (0 d.p.)
By selecting **[1]** you will record all of the answers calculated correct to the nearest tenth (1 d.p.)
By selecting **[4]** you will record all of the answers calculated correct to the nearest 0.0001 (4 d.p.) etc.
Select 4

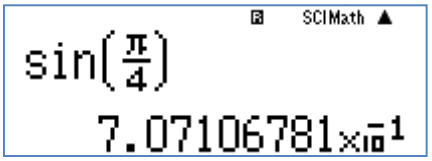


Select 6

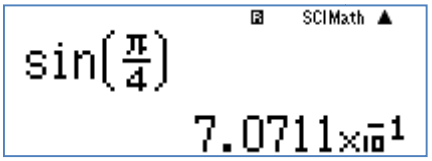


7:Sci This setting mode allows you to give the results of your calculations from 0 decimal places to 9 decimal places in scientific notation or standard form. The calculator again will round the last digit in the answer correctly.

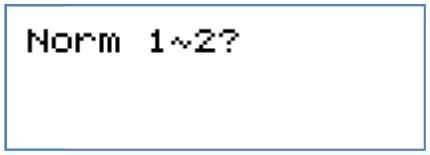


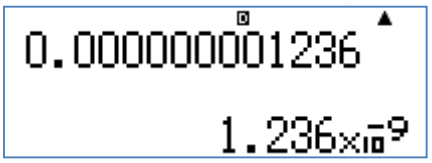


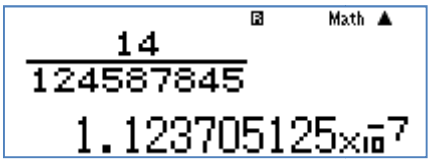
Using a combination of the **Fix** and **Sci** settings.



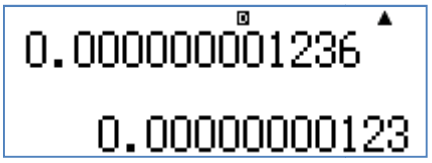
8: Norm 1~2 There are two settings for this mode, **Norm1** and **Norm2**. In the **Norm1** setting the calculator automatically converts to scientific display if the calculation causes the digits to 'overflow'.

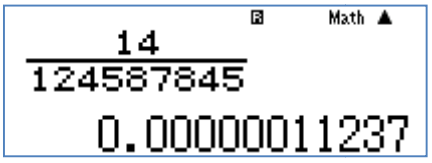






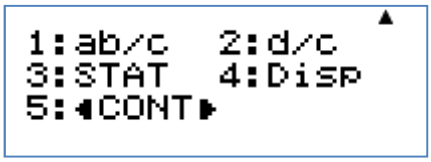
The **Norm2** setting 'holds' onto calculations in decimals longer. This is illustrated by the same decimal number, the '6' is still being used in further calculation but is not displayed.





If you use the ▲ or ▼ this gives you 'page 2' of the settings.

This will give you the following screen.

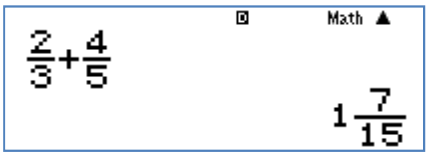


1: ab/c

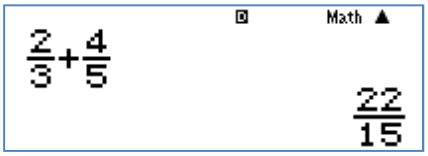
2: d/c

Both of these fraction settings are for the input and output display.

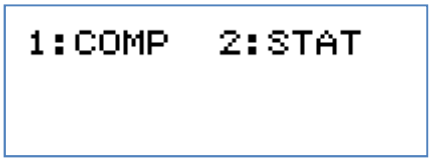
ab/c setting example.



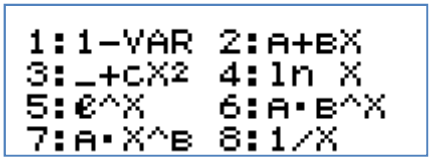
d/c setting example.



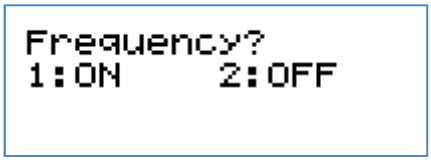
3: STAT To be able to access the **FX82AU**+ statistical package you need to be in **STAT** mode. Press the **MODE** key then 2.



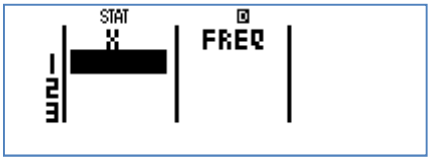
Then the statistics or regression model required



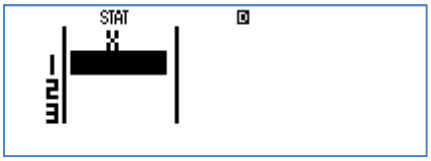
Now enter **SHIFT SETUP ▼** and select 3.



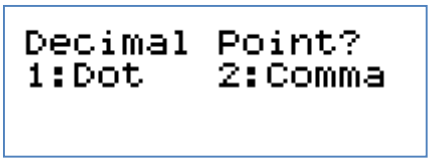
1: ON Frequency on.



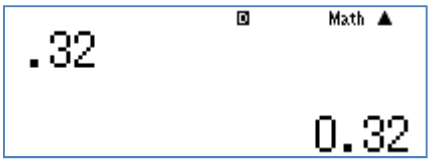
2: OFF Frequency off.



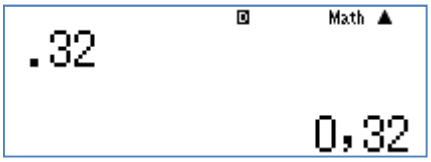
4: Disp This setting gives you the opportunity to use a decimal point or a comma for the decimal point display. (Some European and Asian countries use the comma as the separator from the units column and the $^{1}/_{10}$ column.



1: Dot example



2: Comma example



5: ◀CONT▶ This setting allows you to alter the lightness of the display to suit the light and your eyes.