FX-82MS 2nd edition Overview:

1- On : turn on calculator
2- Mode: Select Desired Subject
3- Shift: Activate yellow icons
4- Alpha: Activate Red icons
5- Del: Delete digits

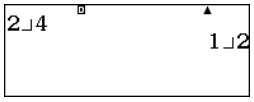
To turn off Calculator: SHIFT AC

To initialize Calculator: SHIFT MODE 3 = =

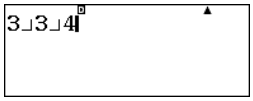
Decimal/Fractions:

Reading Fractions from the calculator:

$\frac{2}{4}$ = 2 a b/c 4 =



$3\frac{3}{4}$ = 3 a b/c 3 a b/c 4



Convert from fraction to decimal:

$\frac{3}{4} = 0.75$ Steps using calculator 3 a b/c 4 =

$3\frac{3}{4} = 3.75$ Steps using calculator 3 a b/c 3 a b/c 4 = a b/c

Convert from decimal to fraction:

$3.75 = 3\frac{3}{4} = \frac{15}{4}$ Steps using calculator 3 • 7 5 = a b/c SHIFT a b/c

$0.15 = \frac{3}{20}$ Steps using calculator 0 • 1 5 = a b/c

Convert mixed number to improper fraction:

$2\frac{2}{3} = \frac{8}{3}$ Steps using calculator [2] [a b/c] [2] [a b/c] [3] [=] [SHIFT] [a b/c]

$1\frac{3}{5} = \frac{8}{5}$ Steps using calculator [1] [a b/c] [3] [a b/c] [5] [=] [SHIFT] [a b/c]

Convert improper fraction to mixed number:

$\frac{15}{8} = 1\frac{7}{8}$ Steps using calculator [1] [5] [a b/c] [8] [=]

Powers and Exponents:

$2^3 = 8$ Steps using calculator [2] [^] [3] [=]

$2^3 + 3^2 = 17$ Steps using calculator [2] [^] [3] [+] [3] [^] [2] [=]

$2^{3+2} + 3^{4+1} = 275$ Steps using calculator [2] [^] [(] [3] [+] [2] [)] [+] [3] [^] [(] [4] [+] [1] [)] [=]

$\frac{3^7 - 3^5}{3^5} = 8$ Steps using calculator [(] [3] [^] [7] [−] [3] [^] [5] [)] [a b/c] [3] [^] [5] [=]

$\frac{2^3}{2^2} + 2^3 = 10$ Steps using calculator [2] [^] [3] [a b/c] [2] [^] [2] [+] [2] [^] [3] [=]

$\frac{3^8}{3^4 \times 3^2} = 9$ Steps using calculator [3] [^] [8] [a b/c] [(] [3] [^] [4] [×] [3] [^] [2] [)] [=]

$\frac{3^8}{3^4} \times 3^2 = 729$ Steps using calculator [3] [^] [8] [a b/c] [3] [^] [4] [×] [3] [^] [2] [=]

Oder of operation:

$3 + 2 \times (3-1)^2 + 5^3 = 136$ Steps using calculator

[3] [+] [2] [×] [(] [3] [−] [1] [)] [^] [2] [+] [5] [^] [3] [=]

$\frac{24 - 2 \times (3-1)^0 - 12}{16 \div 8} + 2 = 7$ Steps using calculator

[(] [2] [4] [−] [2] [×] [(] [3] [−] [1] [)] [^] [0] [−] [1] [2] [)] [a b/c] [(] [1] [6] [÷] [8] [)] [+] [2] [=]

$\frac{3}{4+6} + 1 =$ Steps using calculator

[3] [a b/c] [(] [4] [+] [6] [)] [+] [1] [=]

Square roots:

$\sqrt{4} = 2$ Steps using calculator [√] [4] [=]

$\sqrt{2+7} = 3$ Steps using calculator [√] [(] [2] [+] [7] [)] [=]

$\sqrt{4} + 7 = 9$ Steps using calculator [√] [4] [+] [7] [=]

$\sqrt{3+13} + \sqrt{16+9} = 9$ Steps using calculator
[√] [(] [3] [+] [1] [3] [)] [+] [√] [(] [1] [6] [+] [9] [)] [=]

$3\sqrt{4} \times \left(\sqrt{2} - \sqrt{3}\right) = -6\sqrt{3} + 6\sqrt{2}$ Steps using calculator

[3] [√] [4] [×] [(] [√] [2] [−] [√] [3] [)] [=]

Factorial:

3! = 6 Steps using calculator [3] [SHIFT] [x^{-1}] [=]

$\frac{12!}{10!} = 132$ Steps using calculator [1] [2] [x^{-1}] [$a\frac{b}{c}$] [1] [0] [SHIFT] [x^{-1}] [=]

Percentage:

70% of 120

Steps using calculator: [1] [2] [0] [×] [7] [0] [SHIFT] [=]

145% of 80

Steps using calculator [8] [0] [×] [1] [4] [5] [SHIFT] [=]

What percent of 880 is 660?

Steps using calculator [6] [6] [0] [÷] [8] [8] [0] [SHIFT] [=]

Increase 2500 by 15 %

Steps using calculator [2] [5] [0] [0] [×] [1] [5] [SHIFT] [=] [+]

Decrease 2500 by 15%

Steps using calculator [2] [5] [0] [0] [×] [1] [5] [SHIFT] [=] [−]

What is the percent change when a value increased from 40 to 46?

Steps using calculator: [4] [6] [−] [4] [0] [SHIFT] [=]

Rounding and Scientific Notation:

Round to nearest hundredths 2.78967

Steps using calculator [MODE] [MODE] [MODE] [1] [2]

[2] [•] [7] [8] [9] [6] [7] [=]

Round to nearest thousandths 3.557689

Steps using calculator [MODE] [MODE] [MODE] [1] [3]

[3] [•] [5] [5] [7] [6] [8] [9] [=]

Initialize calculator [SHIFT] [MODE] [3] [=]

Write in Scientific Notation:

To log in scientific notation: [MODE] [MODE] [MODE] [2] [0]

Write 234879727 in scientific notation:

[2] [3] [4] [8] [7] [9] [7] [2] [7] [=]

Initialize calculator [SHIFT] [MODE] [3] [=]

Degree, Minutes and Seconds (Sexagesimal Calculation):

Convert decimal to Sexagesimal value

$2.25 = 2^o15^o0^o$

Steps using calculator

[2] [•] [2] [5] [=] [SHIFT] [°’”]

Convert Sexagesimal to decimal

$2^o15^o0^o = 2.25$

Steps using calculator:

[2] [°’”] [1] [5] [°’”] [0] [°’”] [=] [°’”]

Trigonometry:

1st Setup calculator on Deg mode: MODE MODE 1

Complete the table

x	$Sin\ x$	$Cos\ x$
30^o	sin 3 0 =	cos 3 0 =
SHIFT cos 0 • 5	sin Ans	0.5
45^o	sin 4 5 =	cos 4 5 =

Rectangular to Polar :

$Given\ x = 4\ and\ y = 4\ find\ r\ and\ \theta?$

Steps using calculator

Pol(4 , 4)

Press = to find value of r =5.65

Press: RCL tan to find value of θ=45

Polar to Rectangular:

$Given\ r = 5, \theta = 30^o\ find\ x\ and\ y\ ?$

Steps using calculator:

SHIFT Pol(5 , 3 0)

Press = to find value of x=4.33

Press: RCL tan to find value of y=2.5

Statistics:

Given the data: 10, 7, 10, 9, 8

Input data using calculator

1- Log into SD mode [MODE] [2]
2- input data

[1] [0] [M+] [7] [M+] [1] [0] [M+] [9] [M+] [8] [M+]

Calculate:

a- Sample standard Deviation [SHIFT] [2] [3] [=]
b- Population Standard Deviation [SHIFT] [2] [2] [=]
c- Mean [SHIFT] [2] [1] [=]
d- Sum of data [SHIFT] [1] [2] [=]
e- Sum of squares [SHIFT] [1] [1] [=]

Given table below find average mean

Log into SD mode [MODE] [2]

Grade	9	8	10	7
Frequency	7	3	1	5

1- Fill up data using calculator 82MS
[9] [SHIFT] [,] [7] [M+] [8] [SHIFT] [,] [3] [M+] [1] [0] [SHIFT] [,] [1] [M+] [7] [SHIFT] [,] [5] [M+]

2- Find the average mean: [SHIFT] [2] [1] [=]