

AFM CALCULATOR TRICKS...

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① DIRTY POWER (a^b or $a^{1/b}$ or $a^{b/c}$) (eg $5^{2/3}$)

⇒ Type A [eg 5]

⇒ $\sqrt{\quad}$ 12 times (1.000393...)⇒ $-1 \times \text{power (b)} + 1$ (Here, power = $2/3$, so $-1 \times \frac{2}{3} + 1$
→ 1.000393...)⇒ $x = 12$ times (2.924...)
↳ (ANS)② Above Trick works with decimals also.
eg → $5^{2/3}$ could be $5^{0.66...}$ (same process)③ If power is $1/4$, no need for dirty power
just sq. root 2 times.
eg → $(2401)^{1/4} \Rightarrow 2401 \rightarrow \sqrt{\quad}$ 2 timesAns ⇒ $\boxed{7}$.④ Same, with $1/8, 1/16, 1/32$ ----- just sq. root
increases by 1 i.e. for $1/8$ sq root 3 times, $1/16$
4 times and so on...⑤ For CUBE ROOT eg $\sqrt[3]{27}$ just solve like
 $(27)^{1/3} \rightarrow$ now use same trick as above.⑥ If power is negative eg $(2)^{-1/3}$:-→ Solve first $(2)^{1/3}$, ~~then~~ using dirty power
→ then tap $\frac{0}{0}$ then =
→ Result will be $(2)^{-1/3} \Rightarrow 0.79370...$

② DIFFERENTIAL CASHFLOWS PV IN ONE-SHOT

(Use only when short of time or where not reqd. to show workings like TMCAs).

eg → Normal Table Process :-

Year	Cash Flow	PVIF@10%	PV of CF
1	1,00,000	0.909	90,900
2	1,50,000	0.827	1,24,050
3	2,00,000	0.751	1,50,200
			<u>3,65,150</u>

Now, time for TRICK :-

→ Type 1,00,000 → then divide by 1.10.

→ Press MT

→ Type 1,50,000, press "=" 2 times

→ Press MT

→ Type 2,00,000, press "=" 3 times

→ Press MT

⇒ Now press MRC ⇒ Result = 3,65,138.99...

⇒ why the Σ approx diff from above table ans?

Reason → TRICK gives you exact ans without rounding off PV factors while solving normally figures are rounded off.

③ PVIF VS PVAF → eg $(1/1.15)^7$

→ Type 1.15, then divide & [= 7 times] (once)

→ Result ⇒ PVIF ⇒ 0.3759...

If you press GT → Result is PVAF ⇒ 4.1604...
(Annuity Factor)

④. CALCULATION OF LOG & ANTILOG

For log → eg. $\log 2$

→ Type the no. (2).

→ $\sqrt{15}$ times, then -1 [0.0000211...]

→ divide by 0.000070274

→ Press "=" ~~for~~ for Ans [0.3010...]

For Antilog → eg. Antilog 2

→ Type the no. (2)

→ Multiply by 0.000070274

→ Add 1

→ $\times = 15$ times

→ Press = for Ans (99.99 or 100)

⑤. CALCULATION OF NATURAL LOG = (LN)

eg. $\ln 1.2840$

↳ type the no then $\sqrt{12}$ times

↳ -1×0.096

Press "=" for Ans ~~for~~ [Ans = 0.2499 or 0.25]

⑥. Common log properties = (same for LN)

① $\log 1 = 0, \log 10 = 1, \log 100 = 2, \dots$

② $\log_a (mn) = \log_a m + \log_a n$

③ $\log_b b^x \Rightarrow x \cdot \log_b b \Rightarrow \underline{x}$

④ $\log_a (m/n) = \log_a m - \log_a n$

① $\log_a m^n = n \log_a m$

② $\log_n m = \log_p m / \log_p n$

③ $\log_n m = \frac{\log m}{\log n}$ [$\log_2 10 = \frac{1}{\log_{10} 2}$]
↓
[$\log 2$] ←

⑦ MU BUTTON USE :-

Say, 90,000 is payment done after deduction of TDS at 10%, so what is gross amt?

⇒ type 90,000.

⇒ Press MU then 10%.

⇒ Result = Ans = 1,00,000.

(can use this trick for GST also).

⑧ e^b or b% p.a. continuous compounding (eg $e^{1/3}$)

→ type $e \rightarrow 2.71828$ (value of e).

⇒ Now solve using Dirty power trick $\rightarrow (2.71828)^{1/3}$

Method 2 ← OR

⇒ Type "b" (1/3).

⇒ Divide by 4096

⇒ +1

⇒ X = 12 times

⇒ ANS. (1.3955...)

9) Use of GT (eg $2 \times 3 + 4 \times 5$)

- Calculate 2×3
- Press =
- Calculate 4×5
- Press =
- Press GT (Ans $\Rightarrow 26$)

11) Use of M^+ , M^- , MRC, 10) Simple Power Calcⁿ :-

eg $\rightarrow 7^2$ or 7^3 or 7^4
 Type 7
 Press "x =" [what you get is 7^2]

Now, as you keep pressing "=" you will get
 7^3 , 7^4 etc.

So, $7^3 \Rightarrow 7$ "x =="
 $7^4 \Rightarrow 7$ "x ==="

eg $\rightarrow 17 \times 8 + 13 \times 5 - 2 \times 2$

- $\Rightarrow 17 \times 8 \rightarrow M^+$
- $\Rightarrow 13 \times 5 \rightarrow M^+$
- $\Rightarrow 2 \times 2 \rightarrow M^-$
- $\Rightarrow MRC = \text{Ans} = \underline{197}$

12) Others (Combo, etc.) :-

eg $\sqrt{0.5^2 \times 7^2 + 0.3^2 \times 14^2 + 2 \times 16 \times 0.5 \times 0.7}$

- 0.5×7 "x =" M^+
- 0.3×14 "x =" M^+
- $2 \times 16 \times 0.5 \times 0.7 \rightarrow M^+$
- MRC
- Then $\sqrt{\quad} \rightarrow \underline{\underline{\text{Ans}}}$

② eg →
$$\frac{3.5 + 141.5}{121.3 + 101.4}$$

→ Start with denominator (121.3 + 101.4)

→ MT

Now, 3.5 + 141.5

Press = , then $\frac{\circ}{\circ}$, then **MRC**

Ans ⇒ 0.65

③ one for divide :-

eg ⇒
$$\frac{1/32 - 1/40}{1/40}$$

⇒ Put $1/40$ (i.e. 40% =) in mt.

⇒ Now, do $1/32$ (32% =)

⇒ Press (-) (minus), then **MRC**

⇒ Now, $\frac{\circ}{\circ}$ **MRC** (recalls $1/40$)

⇒ Ans ⇒ 0.25