Calculator Tricks

Trick no. 1 How to calculate खोपड़ी of a number

Mango Method: 2^3 → Type 2x2x2 = 8

2^{13} → Type 2x2x2x .....

खास Method : 2^3 → Type 2x = =

2^{13} → Type 2x = 12 times

Generalised Approach :

① TYPE Number

② TYPE x

③ TYPE = (खोपड़ी - 1) times

Variation 2 of trick 1 ⇒ 3^{12} → 3x = 11 times

$3^{4\times3}$ → 3x = = = x = =

$3^{2\times2\times3}$ → 3x = x = x = =

Variation 3 of trick 1 ⇒ 3^{11} → Type 3x = Counter (12)

2^{17} → Type 2x = Counter (18)

i.e. 2^n → Type 2x = Counter (1+n)

Summary of Trick . 1

2^5

2x = = = =

32

2^{15}

$2^{5\times3}$

2x = = = = x = =

32,768

2^{17}

2x = Counter (18)

1,31,072

Trick no. 2 How to calculate अगली-पगली of a no.?

Hango Method : $\frac{1}{2^3} = 1 \div 2 \div 2 \div 2 = 0.125$

$\frac{1}{2^{13}} = 1 \div 2 \div 2 \div 2 \ldots\ldots$

खास Method : If we have to convert any number from Denominator to Numerator we always type ÷ =

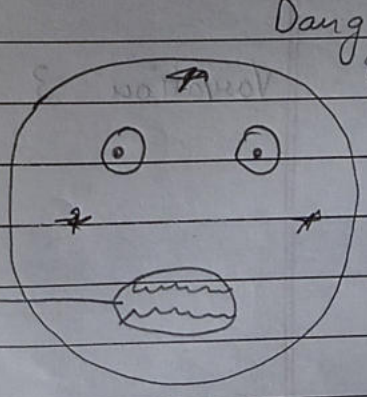
$\frac{1}{2^3}$ → Type 2 ÷ = = =

Generalised Approach :

Type Number

Type ÷

Type = खोपड़ी times



खोपड़ी times देगा
या कि (खोपड़ी-1) time

$\frac{4}{3^9}$ → Type 3 × = Counter(10) ÷ = ×4

Trick no. 3 जो भी खोपचें में होता है वो अल्टी - पल्टी मारकर खोपड़ी पर आ जाता है।

खोपचा = Surd
खोपड़ी = Power / Indices

$\sqrt[3]{27}$ → 27 का cube root

$27^{1/3}$

$\sqrt[3]{8}$ = $8^{1/3}$

खोपचा → खोपड़ी

जिसका कोई नहीं होता उसका 2 तो होता ही है

$\sqrt{8} = 8^{1/2}$

$\sqrt{16} = 16^{1/2}$

Trick no. 4 How to calculate ऊपर - नीचे खोपड़ी?

Mango Method: $(27)^{1/3} \rightarrow (3\times3\times3)^{1/3} = 3^{3\times1/3} = 3$ Ans.

$(27.10)^{1/3} \rightarrow$? टॉप टॉप फिस्स

$(16)^{1/4} \rightarrow (2\times2\times2\times2)^{1/4} = 2^{4\times1/4} = 2$ Ans.

$(16.10)^{1/4} \rightarrow$? टॉप टॉप फिस्स

PART - A

खास Method: हर $\frac{1}{2}$ के लिए calculator पर $\sqrt{}$ का Button होता है।

$16^{1/2} \rightarrow$ Type $16\sqrt{} = 4$ Ans.

$16^{1/4} \rightarrow 16^{1/2\times1/2} \rightarrow$ Type $16\sqrt{}\sqrt{} = 2$ Ans.

$(16.10)^{1/4} \rightarrow 16.10\sqrt{}\sqrt{} = 2.003$ Ans.

[Only for 2 (s) power]

PART - B

पहाड़ी Method

$(8)^{1/3}$

$D = 3$

$N = 1$

Type ÷ D × N of खोपड़ी

★ It is according to the question

Type $\sqrt{}$ 12 times, Type -1 ... Type +1 ... Type (× =) 12 times

$3^{2.6} = 3^{2.6/1}$

$9^{1.6} = 9^{1.6/1}$

If we have to change the sign of the power we can do by reversing the number.

$2^{-3} = \frac{1}{2^3}$

$\frac{7}{8^{-3}} = 7 \times 8^{3}$

$2^{3} = \frac{1}{2^{-3}}$

For changing the sign [+/−] ex: 3×-2

3×2 [+/−] $= -6$

$(1.10)^{-7.3}$ → Type 1.10

√ 12 times

− 1

÷ 1

× 7.3 [+/−]

+ 1

(x =) 12 times

0.4987 Ans.

Trick no. 5 How to calculate log on calculator

Mango Method: Log 13 → Antilog of log 13,
See log table

Log 100000 = 5 , Log 10 = 1 , Log 100 = 2 , Log 1000 = 3
Log 10000 = 4

अब Method:

Log 13 → Type 13
√ 19 times
Type − 1
Type × 227695 = 1.1139 Ans.

Generalised Approach:

Type : Number (Variable)
Type : √ 19 times (Fixed)
Type : −1 (Fixed)
Type : × 227695 (Fixed)

Trick no. 6 चलो Sum करें।

Mango Method:

Q. Calculate sum upto 15 terms:

2, 5, 8, 11, ... Diff. = 3

2 + 5 + 8 + 11 + 14 + 17 + 20 + 23 + 26 + 29 + 32 + 35 + 38 + 41 + 44

Sum = 345

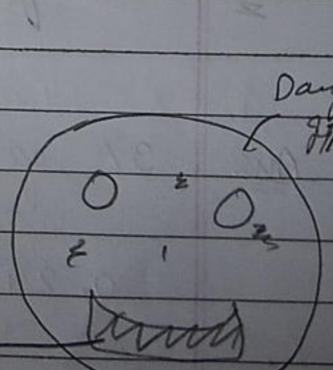
खास Method:

Type → 2
+3
Counter (16)
GT
+2

Ans. 345

Generalised Approach:

Type : First Term
Type : + Common Difference
Type : = Counter (n+1)
Type : GT + first term



GT First टर्म भूल जाता है।

GT – Grand Total

Trick no. 7 BODMAS

→ Sequence of operations

B	O	D	M	A	S
↓	↓	↓	↓	↓	↓
Bracket	of	Division	Multiplication	Addition	Subtraction

Q. 3% of $\frac{8}{9} + \frac{9}{16} \times \frac{2}{3}$ {3 of 8} × 9 − 6

Ans. $\frac{8}{9} + \frac{9}{16} \times \frac{2}{3} \times 24 \times 9 - 6$

$0.8888 + 0.5625 \times 0.6666 \times 24 \times 9 - 6$

$0.8888 + 80.9919 - 6$

$81.8807 - 6$

$\boxed{75.8807}$ Ans.

Q. 3% of $8 \div 9 \times 3 + \{4 - 6 \times 3\} + \frac{8}{3}$

Ans. 3% of $8 \div 9 \times 3 - 14 + \frac{8}{3}$

$0.24 \div 9 \times 3 - 14 + \frac{8}{3}$

$0.02666 \times 3 - 14 + 2.6666$

$02.74658 - 16$

$\boxed{-11.25342}$ Ans.

Q. 0.1% of $8 \times 10 + \left\{ \frac{\frac{10}{2} - 7}{2 \times 10 - 8 - 6} \right\} \times 14$

Ans. 0.1% of $8 \times 10 + \left\{ \frac{-2}{6} \right\} \times 14$

0.1% of $8 \times 10 - 0.3333 \times 14$

$0.008 \times 10 - 0.3333 \times 14$

$0.08 - 4.6662$

$\boxed{-4.5862}$ Ans

Trick no. 8 Calculator की Memory

Mango Method : $2+3-7 \rightarrow -2$ Ans.

$\frac{2}{7} + \frac{3}{0.7} - 7 \times 12 \rightarrow 0.2857 + 4.2857 - 84$

$= -79.42$ Ans.

आसान Method :

जिसे + करना हो, उसे M+ में डालो
जिसे − करना हो, उसे M− में डालो

Press MRC to know the answer

(i) Type $2 \div 7$ M+ (ii) Type $3 \div 0.7$ M+

(iii) Type 7×12 M− (iv) Type MRC → −79.42

Q. $\cfrac{2}{\frac{1}{3}+\frac{1}{4}}$

A. Type $4 \div =$ M+, $3 \div =$ M+, MRC $\div = \times 2 = 3.4285$ Ans.

Q. $x = 4 + \cfrac{1}{4 + \cfrac{1}{4 + \cfrac{1}{4+\frac{1}{4}}}}$

A. Type $4 \div = +4 \div = +4 \div = +4 \div = +4$

4.2360 Ans.

Basic Identities

1. $(a+b)^2 = a^2 + b^2 + 2ab$ $(a=2, b=1)$

→ $(2+1)^2 = 2^2 + 1^2 + 2 \times 2 \times 1$

$3^2 = 4 + 1 + 4$

$9 = 9$

Hence Proved

2. $(a-b)^2 = a^2 + b^2 - 2ab$ $(a=2, b=1)$

→ $(2-1)^2 = 2^2 + 1^2 - 2 \times 2 \times 1$

$1^2 = 4 + 1 - 4$

$1 = 1$

Hence Proved

3. $a^2 - b^2 = (a+b)(a-b)$ $(a=2, b=1)$

→ $2^2 - 1 = (2+1)(2-1)$

$4 - 1 = 3 \times 1$

$3 = 3$

Hence Proved

4. $(a+b)^3 = a^3 + b^3 + 3ab(a+b)$ $(a=2, b=1)$

→ $(2+1)^3 = 2^3 + 1^3 + 3 \times 2 \times 1 (2+1)$

$3^3 = 8 + 1 + 18$

$27 = 27$

Hence Proved

5. $(a-b)^3 = a^3 - b^3 - 3ab(a-b)$ $(a=2, b=1)$

→ $(2-1)^3 = 2^3 - 1^3 - 3 \times 2 \times 1 (2-1)$

$1^3 = 8 - 1 - 6$

$1 = 1$

Hence Proved

6. $a^3 + b^3 = (a+b)(a^2+b^2-ab)$ $(a=2, b=1)$

→ $2^3 + 1^3 = (2+1)(2^2+1^2-2\times1)$

$8+1 = 3 \times (4+1-2)$

$9 = 9$

Hence Proved

7. $a^3 - b^3 = (a-b)(a^2+b^2+ab)$ $(a=2, b=1)$

→ $2^3 - 1^3 = (2-1)(2^2+1^2+2\times1)$

$8-1 = 1 \times (4+1+2)$

$7 = 7$

Hence Proved