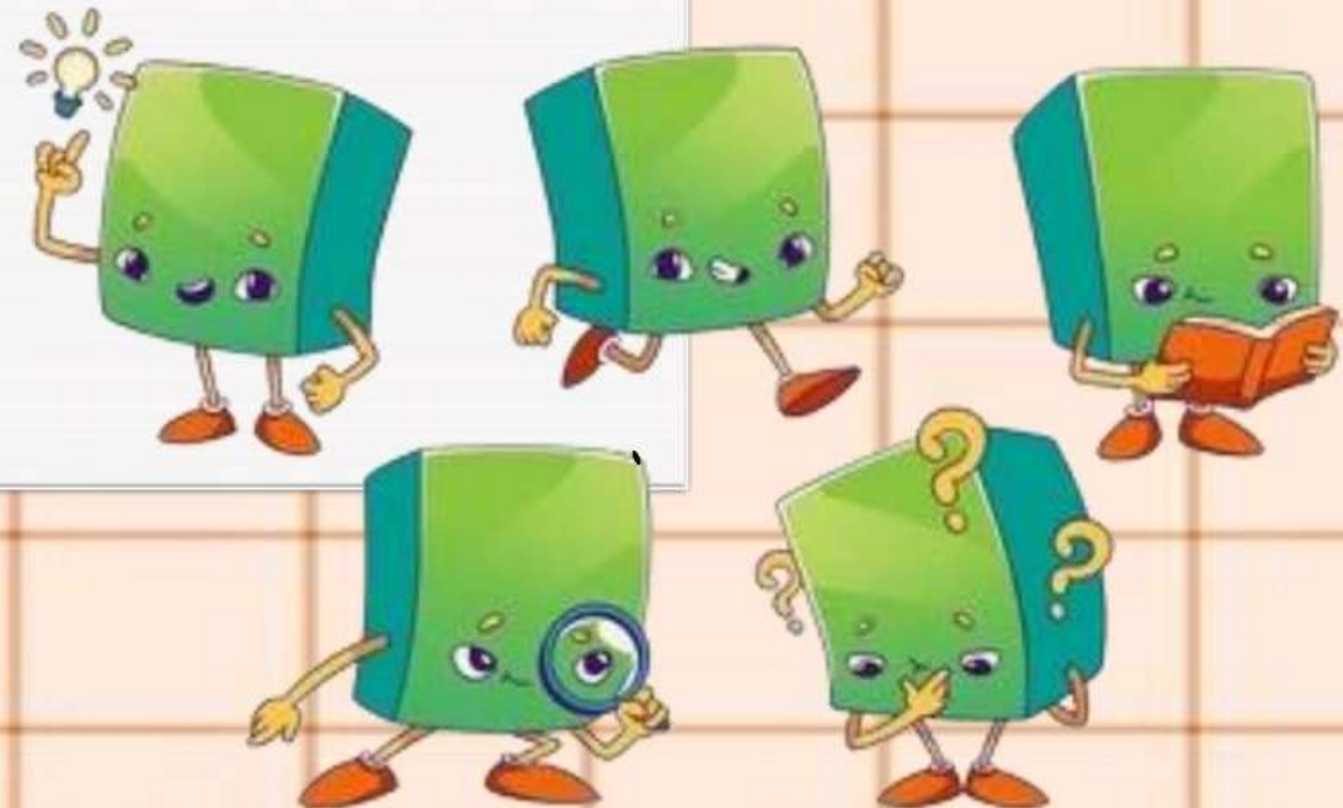


✓ CUBE & CUBOID

Non-Verbal Reasoning

✓ 3-D orientation
2-D orientation

Cube & Cuboid
Dice



Introduction (परिचय)

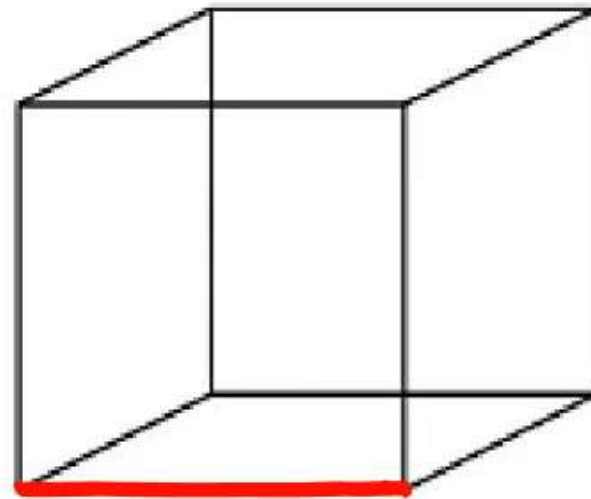
- In a cube or a cuboid, there are six faces in each.

Cuboid का एक प्रकार



Cube

$$l = b = h$$



Cube & Cuboid



Cuboid

$$l \neq b \neq h$$

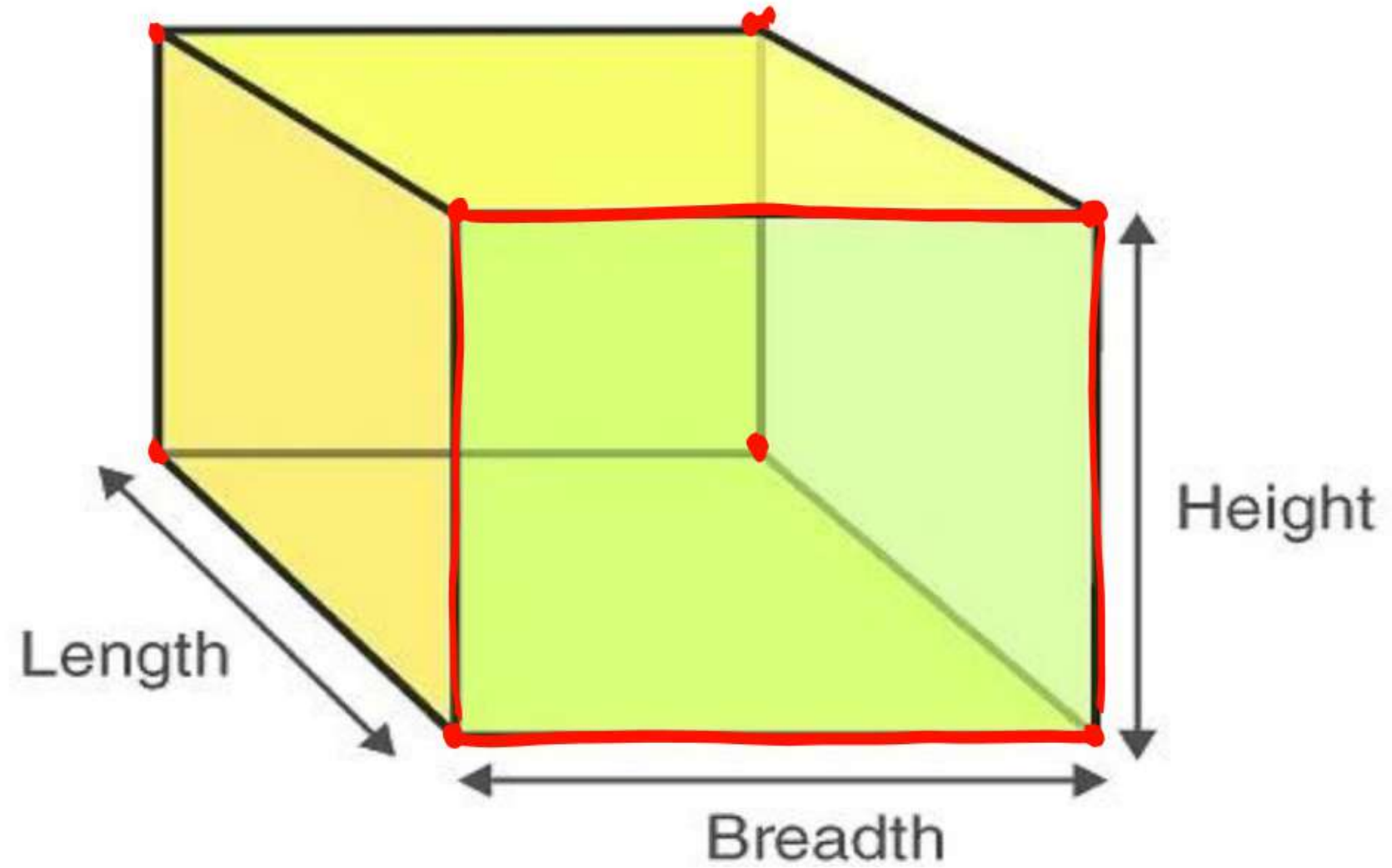
Corner $\rightarrow 8 \rightarrow$ कोने
Edges $\rightarrow 12 \rightarrow$ किनारे
Surface $6 \rightarrow$ फलक (सतह)

વિમાયે
3 - Dimension

લંબાઈ → length L

ચોડાઈ → breadth B

ઊંચાઈ → height H



<u>A cube has:</u>	Faces सतह	Vertices corner कोने	Edges किनारे
A Cuboid has घन / घनाभ	6	8	12

Visible sides

Maximum
अधिकतम

3

opposite faces

विपरीत सतह

ऊपर (UP)

नीचे (Down)

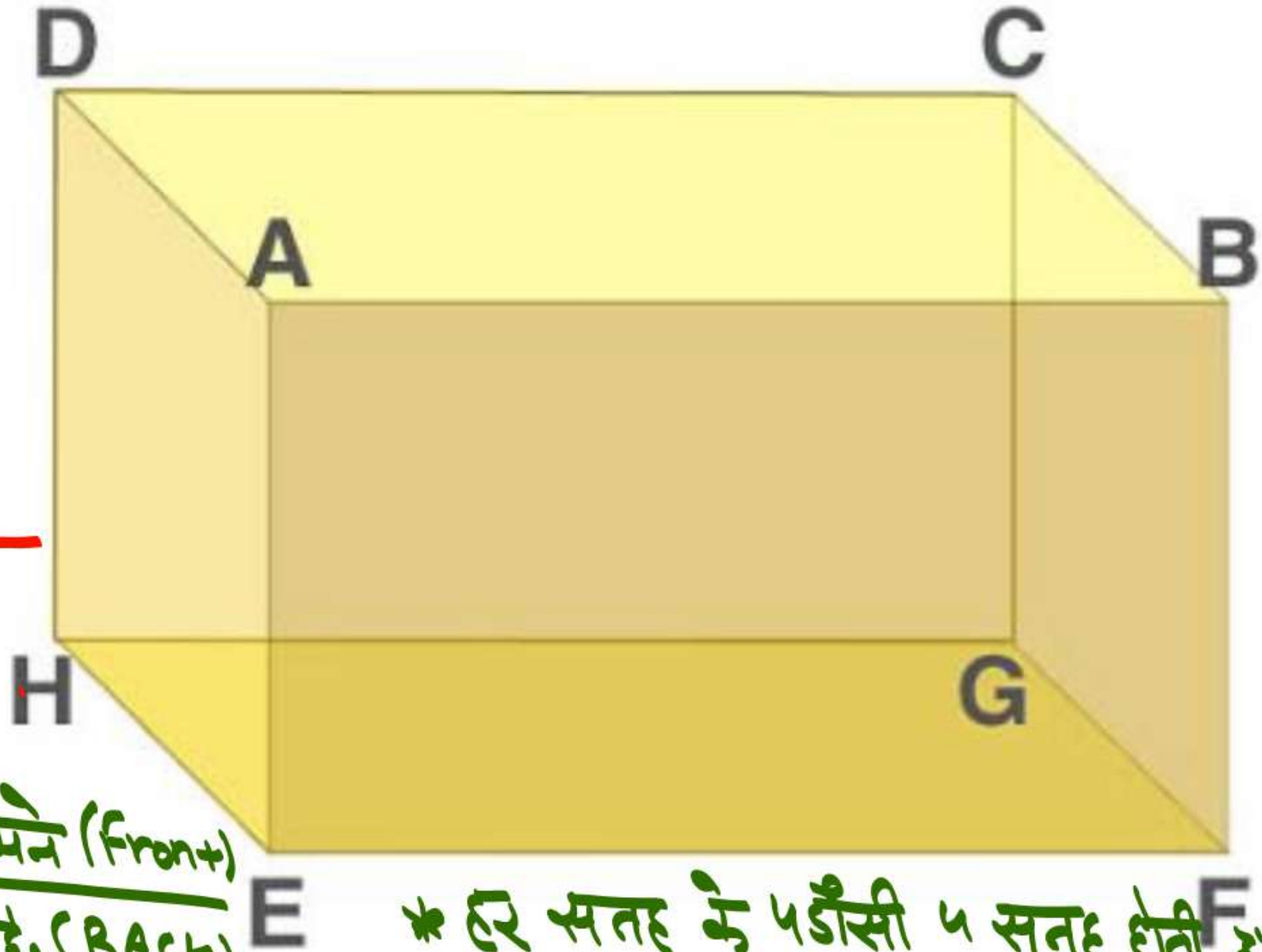
दाई (Right)

बाई (Left)

सामने (Front)

पीछे (Back)

3 विपरीत युग्म



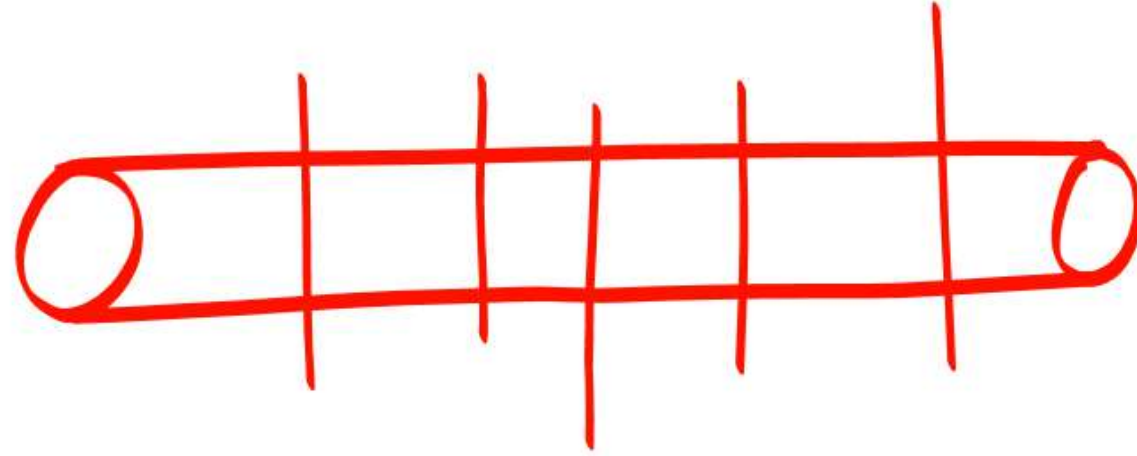
* हर सतह के 4 डीसी 4 सतह होती हए
Every face has 4 adjacent faces.

Cuboid Shape

Concept of Cutting A Cuboid एक घनाभ को काटने के कॉन्सेप्ट

1-Dimension Cut

① Parallel Cut (समांतर कट)



Cut
काट

0

1

2

3

4

5

$\vdots$
 N

Piece
डिंडी

1

2

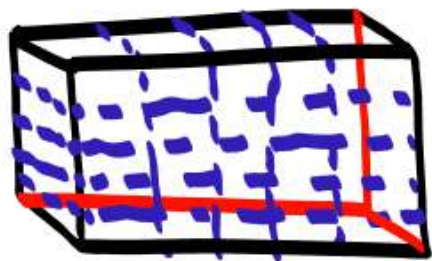
3

4

5

$\vdots$
 $N+1$

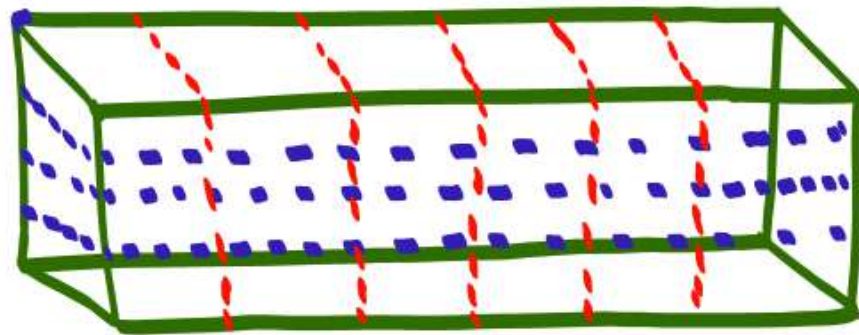
2-D Cut



length
4 cut
↓
5 pieces

height
4 cut → 8 pieces
↓
5 pieces

कुट → $5 \times 5 = 25$



अंकाई
5 कर
↓
6 टुकड़े

अंकाई
3 कर
↓
4 टुकड़े

कुल टुकड़े
total pieces

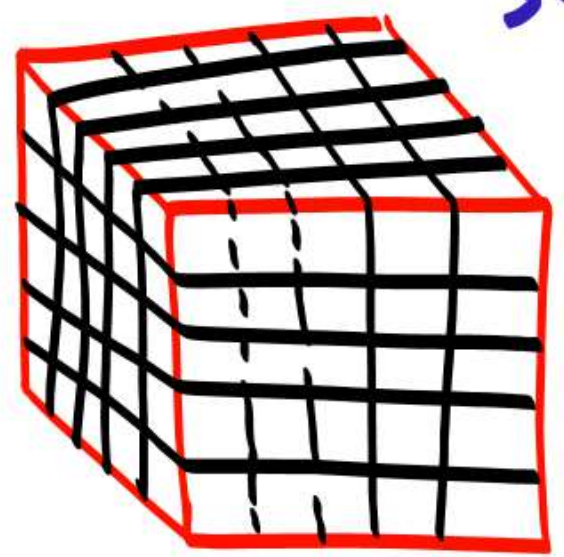
$6 \times 4 = 24$ pieces

$\frac{5+3}{8+2}$

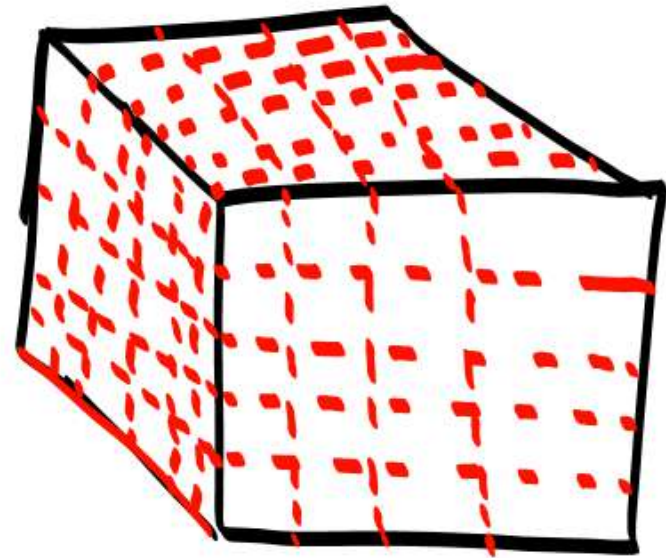
3-D Cut

l b h

अधिकतम



l → 5
b → 5
h → 5 → 12 कट
 $5 \times 5 \times 5 = 125$



Length 3 Cut → 4 pieces
Breadth 5 Cut → 6 pieces
Height 4 Cut → 5 pieces
→ $3 + 5 + 4 = 12$ कट
 $4 \times 6 \times 5 = 120$ क्यूब इकाई



Maximum pieces

आधिक्यतम टुकडे

जब Symmetric तरीके से समान कट कीजें

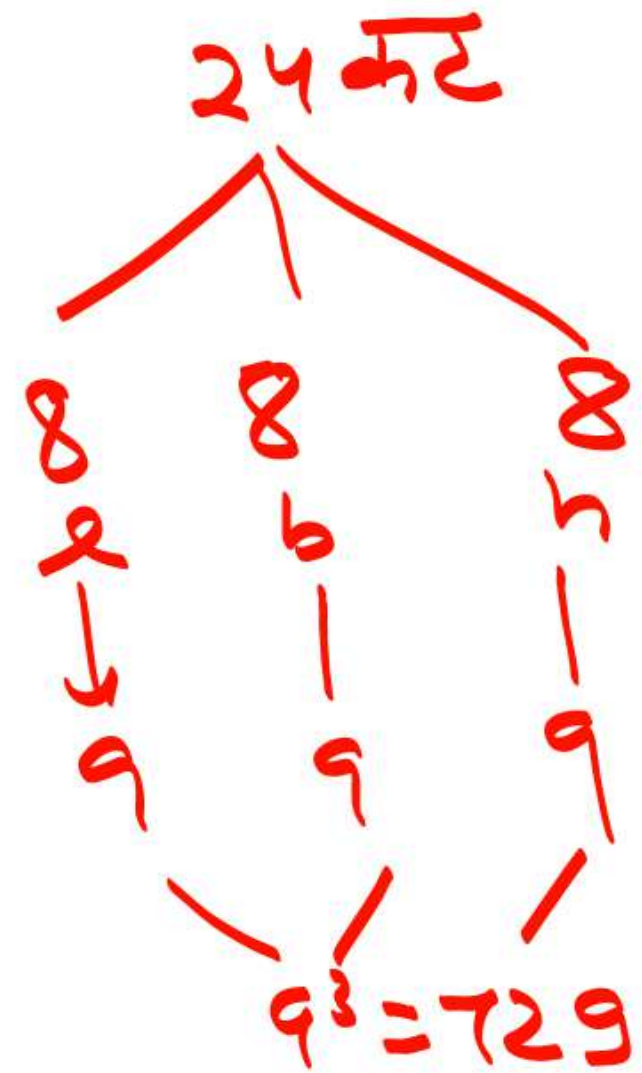
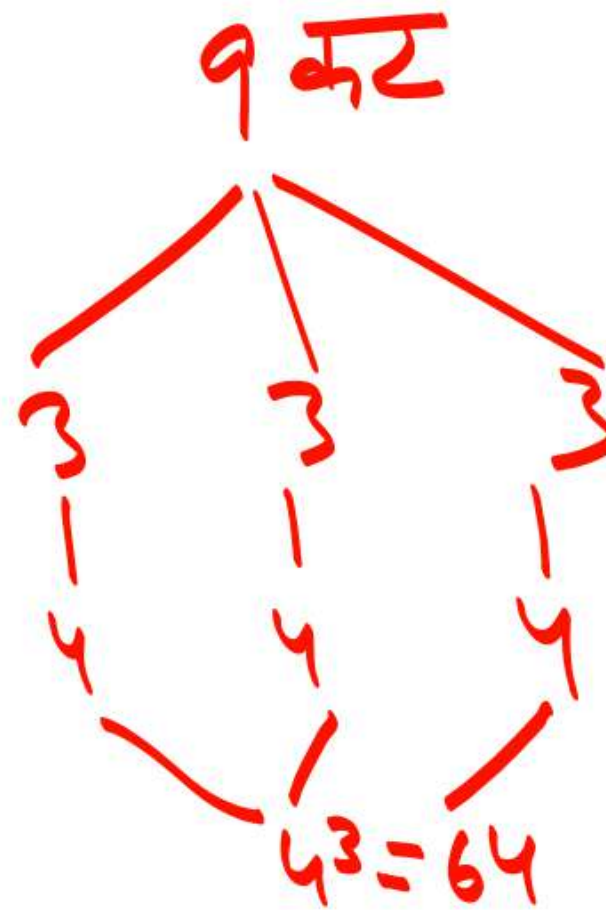
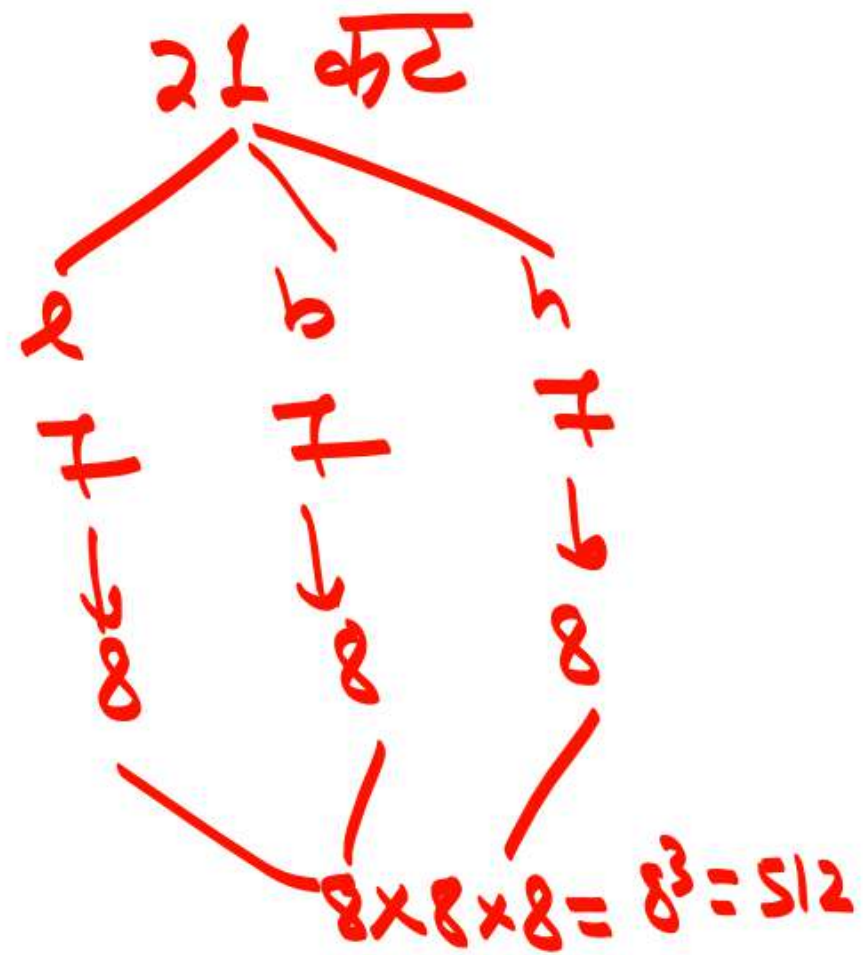
Q 18 कट



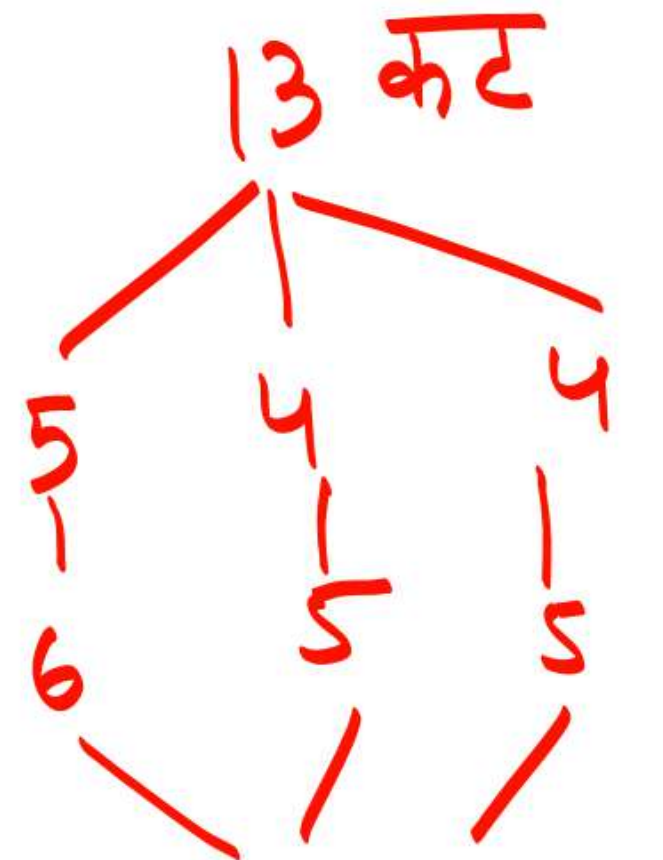
$$7-6 \\ 7-6 \\ 7-6 \\ 7 \times 7 \times 7 = 343$$

Q 15 कट

$$5-4 \\ 5-4 \\ 5-4 \\ 6 \times 6 \times 6 = 216 \text{ टुकडे}$$



Minimum Cuts → Max pieces
 अधिकतम टुकड़े



$$6 \times 5 \times 5 = 150$$

Best

अधिकतम

