

$x, y, z$

A and B

$$\underline{\underline{A \vee B = 10}}$$

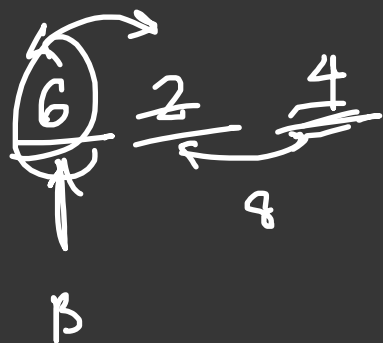
B = one of the  $x, y, z$ .

$$6 \times 2 \times 1$$

A : product of remain 2

$$A \text{ is } \% B = 0$$

$$TB = \frac{48}{4}$$



$$T: \text{ if } (\% B = 0)$$

$$B = x$$

$$B = y$$

$$\underline{\underline{B = z}}$$

$$B = x$$

$$A = xy^2$$

$$B = y$$

$$A = x^2$$

$$B = z$$

$$A = xy$$

$$\frac{48}{x}$$

$$\underline{\underline{48x}}$$

$$B = 4$$

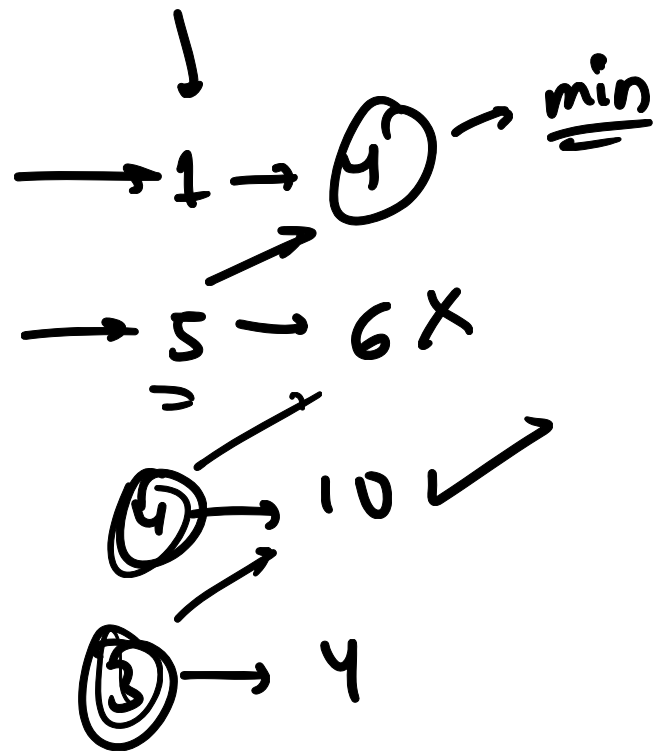
$$A = 12$$

$$12 / 4 = 3$$

$$TB = \frac{48}{4}$$

$$\underline{\underline{48}}$$

$$\frac{48}{6x} \quad b$$



run 2 ~~1~~ 2  
 min - 4  
~~arrive[i]~~ ~~depart[min]~~  
 5 ~~4~~ ~~6~~  
 $5 > 4 \times$   
 $4 >$

$1 \rightarrow \underline{4}$      ~~2~~ ~~3~~  
 $\quad \quad \quad \rightarrow$   
 $\underline{5} \rightarrow 6$   
 $4 \rightarrow 10$   
 $3$

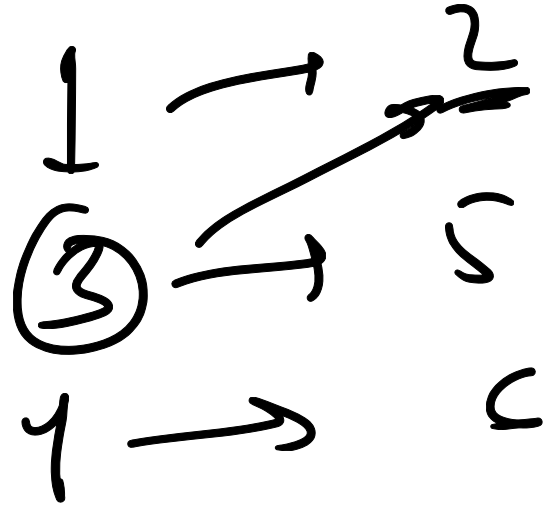
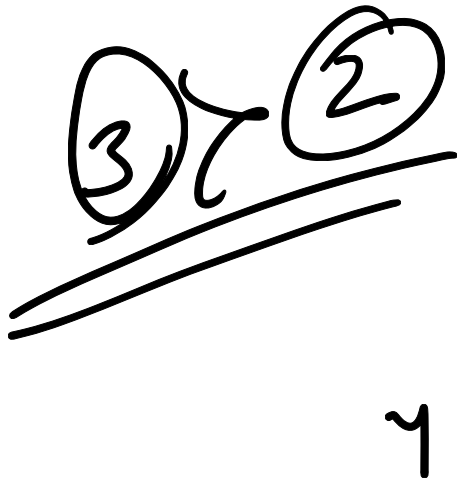
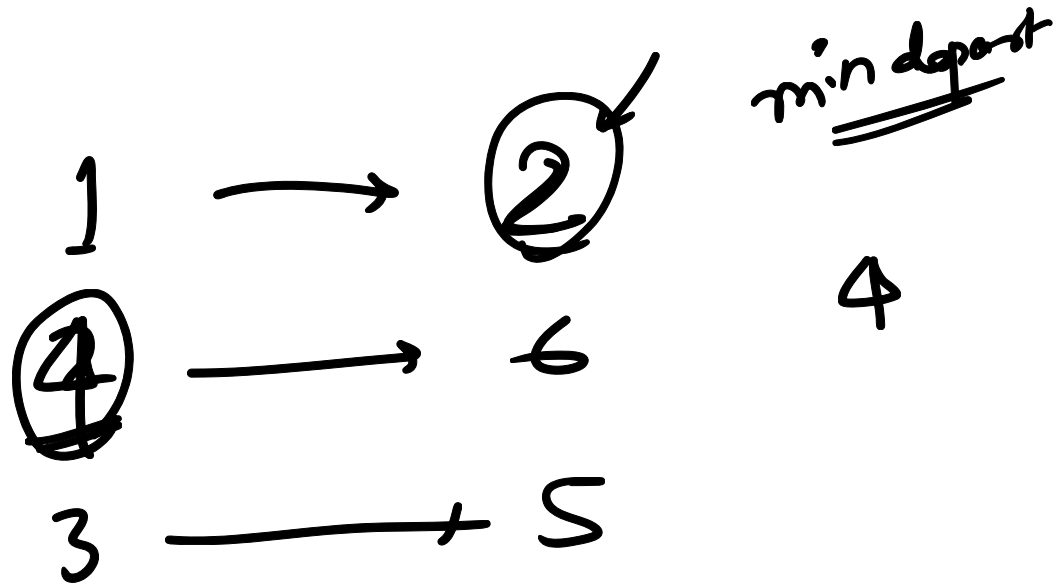
4

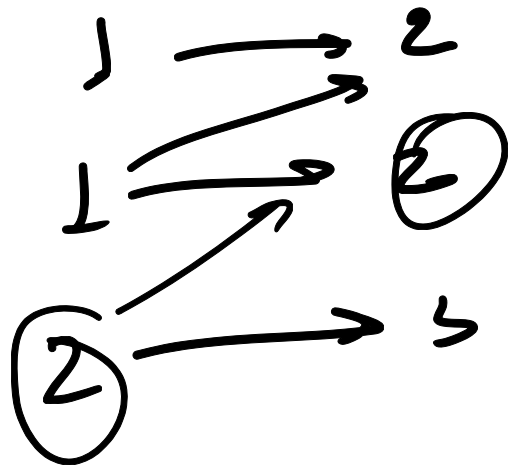
(2) (3) 4 5  
(6) 6 6 6

(2) (4) (5) (6) (7)  
4 5 6 7

1 → 2  
4 → 6  
3 → 5

4 7 2  
1 → 2  
3 → 5  
4 → 6





1 < 2 \* .run++

$N$  empty box

$M \rightarrow$  diff. colors  $1 \rightarrow M$

Min no. of boxes  
we require balls

Airport :

N

A

D

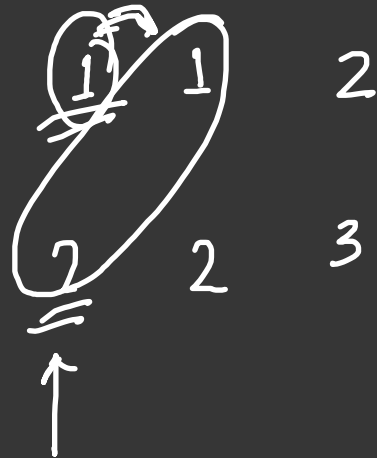
min. runno. of runway required.

$N = 3$

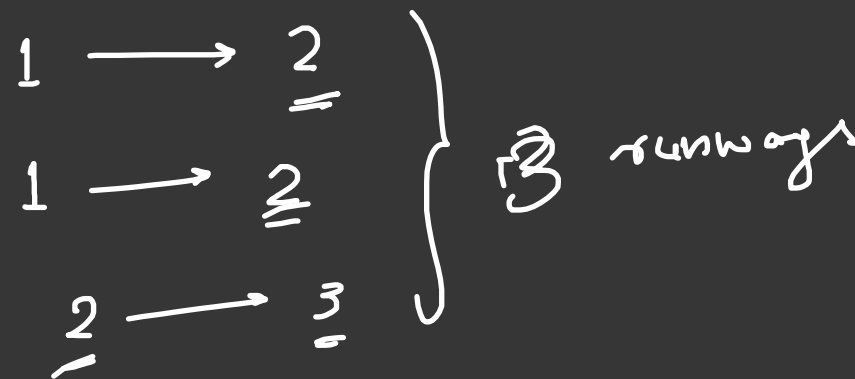
$A = \{1, 1, 2\}$

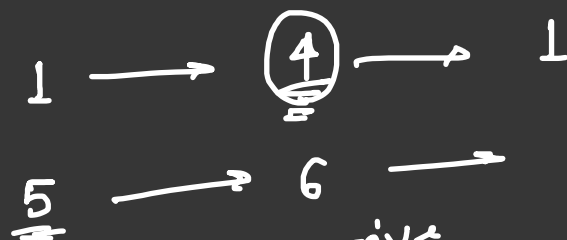
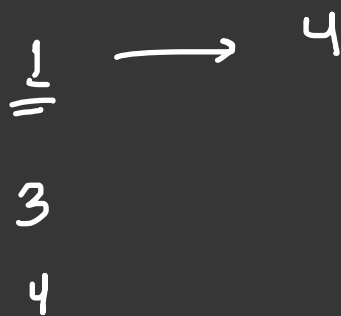
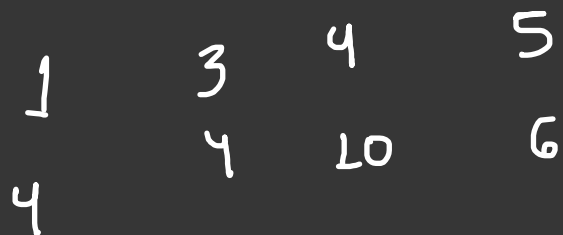
$D = \{2, 2, 3\}$

↓ min arrival



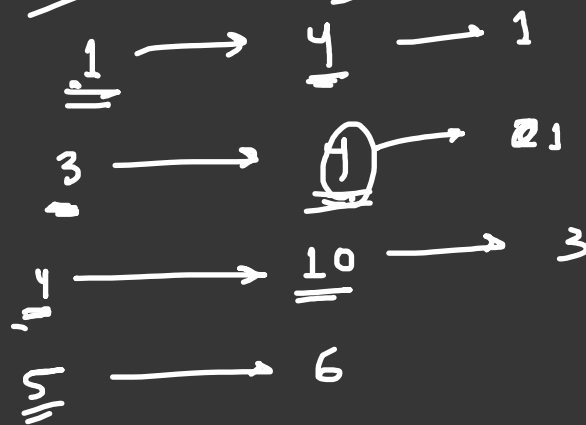
maximum depart





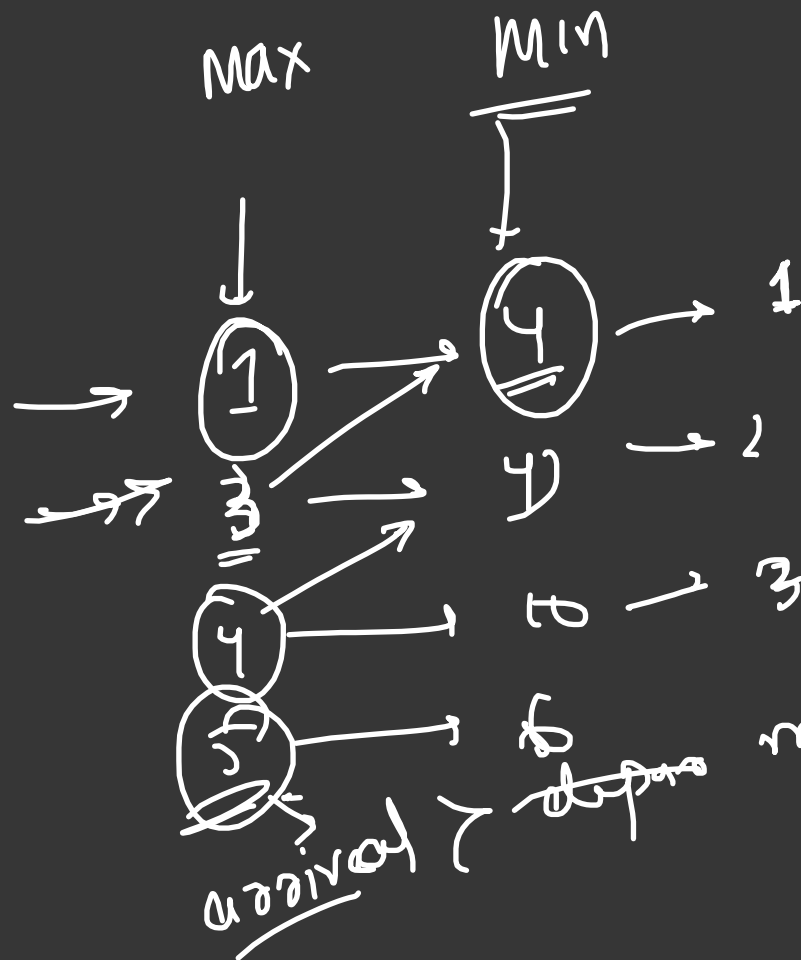
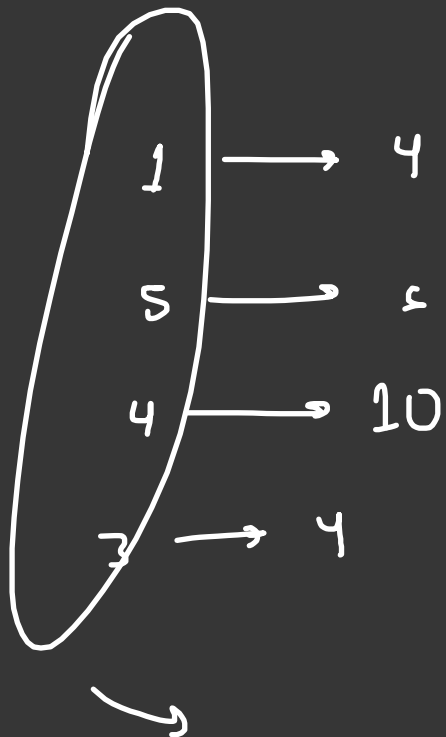
max active

min deposit





map



if (depart < <sup>min</sup> ~~depart~~)

arrival > ~~depart~~ min depart

1 4 3

2 c 5

min

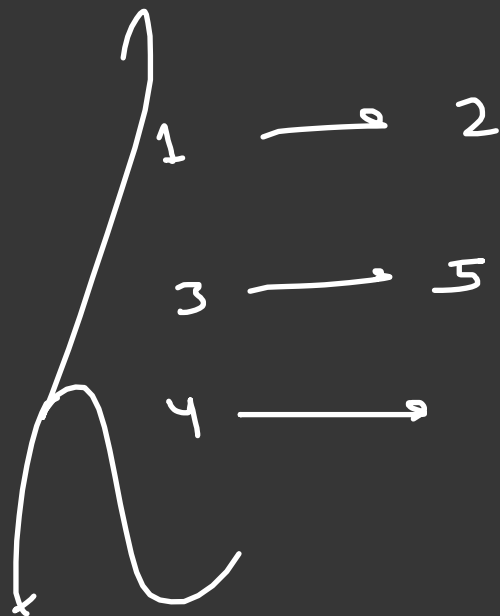
2

1

1 → 2

3 → 5

4 → 6



1 → 2  
4 → 6  
3 → 5

1

vector

N H

$N=5 \rightarrow \text{box } u$

$M=3$

$\{ \textcircled{5}, 4, 4 \}$   
           1   2   3

1   2   3

1   2   3

Q1

N1



N2

3

2

5

1	2	3
1	2	3
1	2	3
1	2	
1	3	

} min  
=

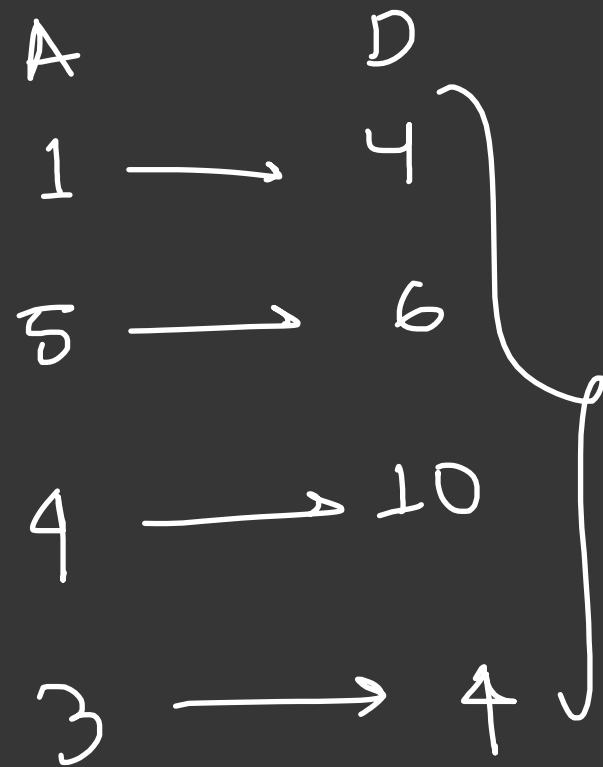
~~a~~ b c d ~~e~~  
↑

~~a~~ ~~b~~ c d e  
↑

↑  
↓

Daily DSA Revision  
is must and

necessary @

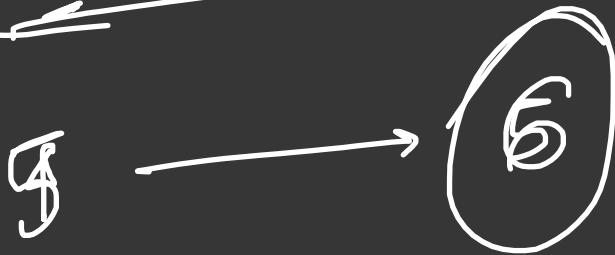


4  
4  
min runways

$N = 4$  airplanes

ire Ajm min  
Dir min

when will be runway cleared

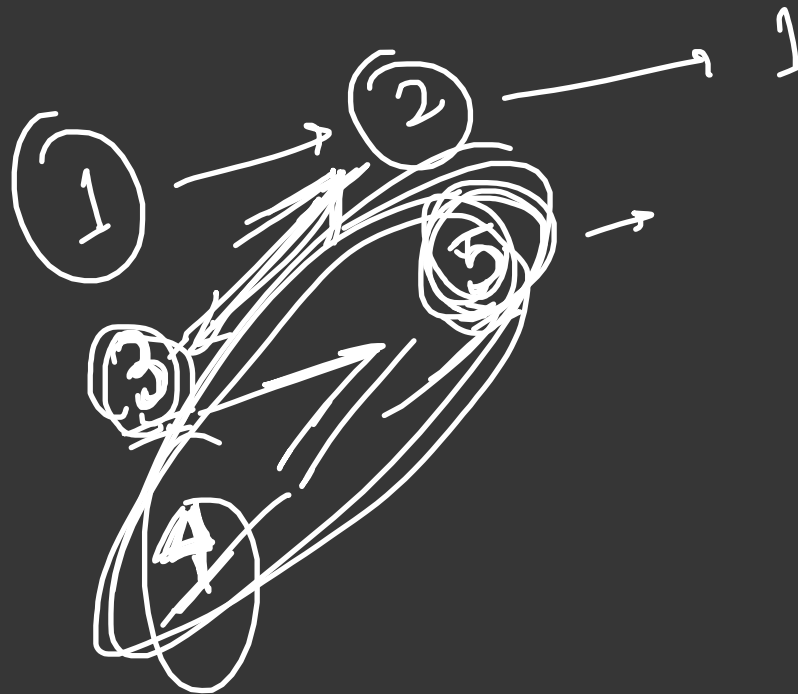
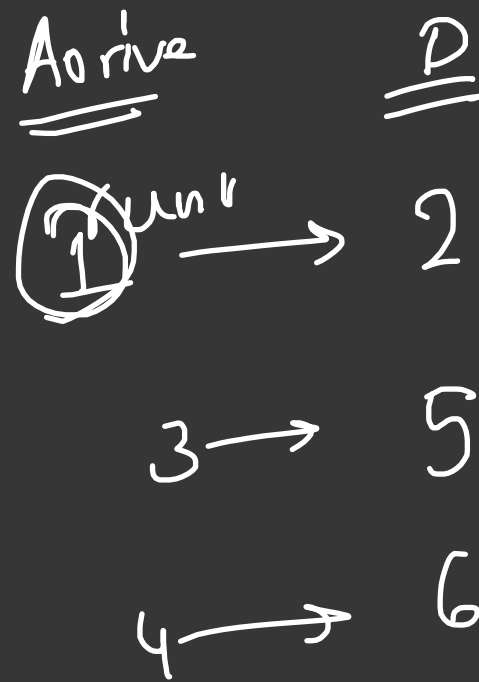
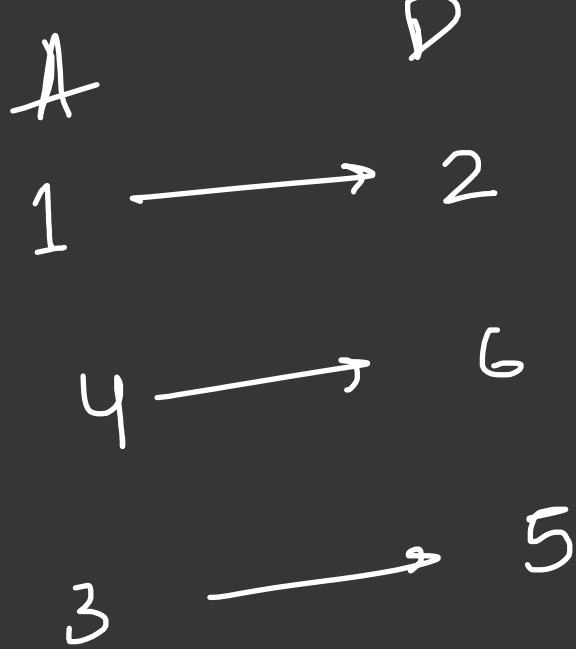


10

4

1  
Arrival time  
already  
plane

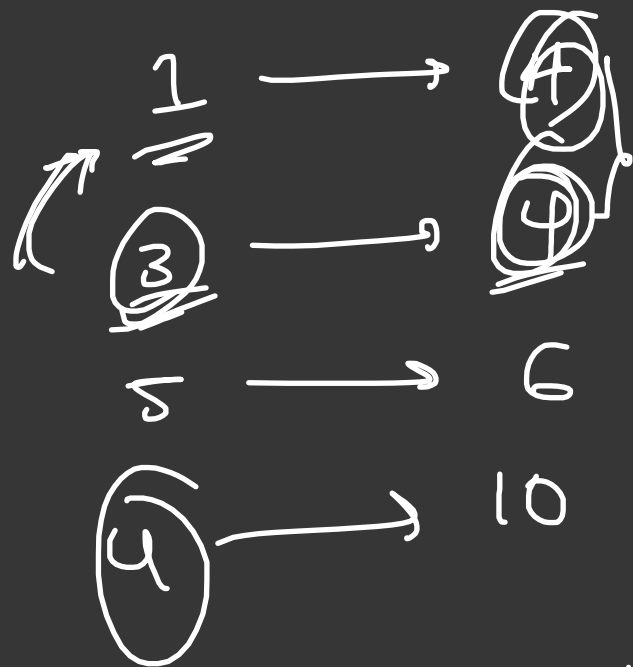
depart



run

424





1 + 1

3

dep

2

1 4 5  
2 6

1

1

3

2

2

$$mp[0] = 1$$

map  
map [

mp [deriv] ++

1 → 2

max  
 mat

m3

|

$N$  empty boxes

$M \rightarrow$   $\{1 \rightarrow M\}$  colors

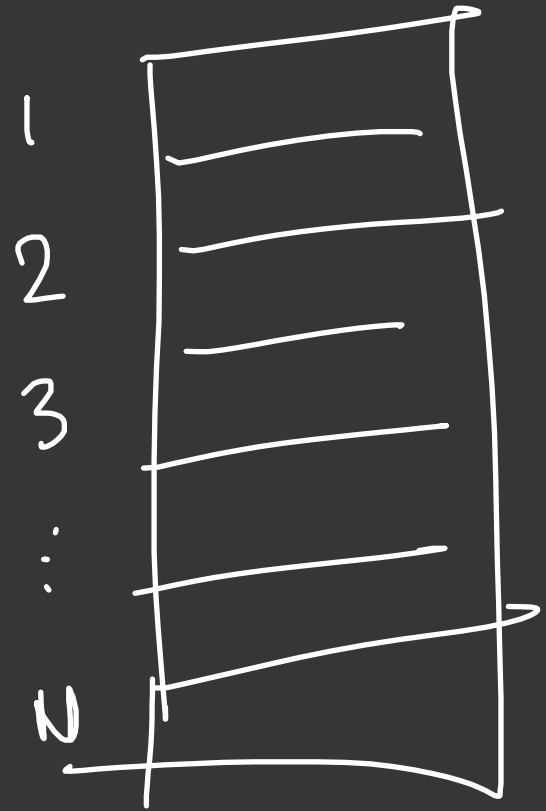
no of colours =  $\text{Arr}(M)$

Valid distribution  $\rightarrow$  min no. of boxes

find

$\rightarrow$  every ball is placed  
all balls are different

having  $M$  boxes balls



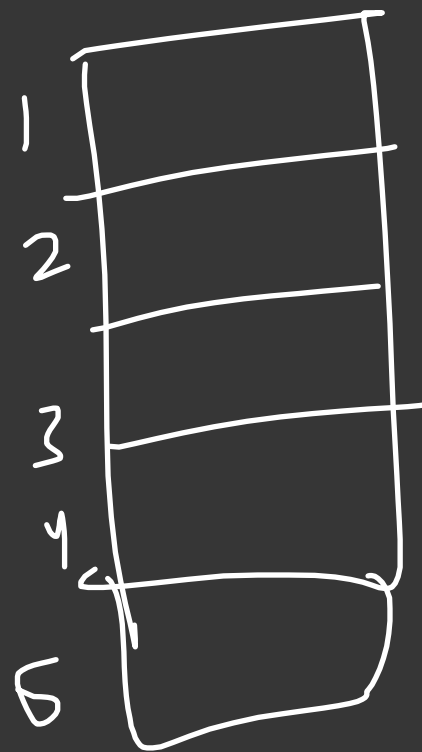
$$\begin{array}{r}
 5 \qquad \qquad 3 \\
 \rightarrow 5 \quad 4 \quad 4 \\
 \rightarrow 1 \quad 2 \quad 3
 \end{array}$$

$$\begin{array}{l}
 4+4+5=13 \\
 3+5=8 \\
 5=5 \\
 \frac{13}{2} \text{ (5)}
 \end{array}$$

$$1 \quad 2 \quad 3$$

$$1 \quad 2 \quad 3$$

$$1 \quad 2 \quad 3$$



Total

$$2 \times 2 = 4$$

$$\begin{array}{r}
 8+5 \\
 13 \\
 5+4+4 \\
 5-2 \\
 15 \\
 13 \\
 \hline 2
 \end{array}$$

$$\begin{array}{r}
 15 \\
 13 \\
 \hline 2
 \end{array}$$

$$5 - 3$$

$$2$$

$$5 \times 3 = 15$$

$$\begin{array}{r}
 2 \times 2 = 4 \\
 4 - 2 = 2 \\
 4 - 2 = 2
 \end{array}$$

$$2 - 2 = 0$$

$$N = 2$$

$$M = 2$$

$$1+1$$

$$\begin{array}{r}
 4 \\
 -2 \\
 \hline 2
 \end{array}$$

$$2 - 2 = 0$$

$$\begin{array}{r}
 15 \\
 13 \\
 \hline 2
 \end{array}$$

$$5 - 2$$

$$1+1$$

12 empty box

Valid dist

minimum no. of boxes

11 5 4 6

11

~~11~~ 11 > 15

5 4 4

no total

13

1

5x4

1 2 3 !, - ,

Valid dist

6 4 4

1

1 0 1 2 5

1 1 1 2 3

1 2 1 2 3

1 3 1 2 4

1 1 3 4

~~1 2 3 4~~

~~a~~ ~~a~~ ~~b~~ cd → x

a a b d  
↑ ↑

a ~~a~~ ~~b~~ ~~d~~  
↑

ad x

a a b ~~d~~  
↑

aa ✓







