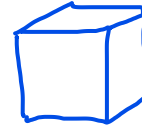




DICE



Sum of adjacent face $\neq 7$



Standard
(Sum of opposite Face = 7)

$$\begin{aligned} 1 + 6 &= 7 & (1 \rightarrow 6) \\ 2 + 5 &= 7 & (2 \rightarrow 5) \\ 3 + 4 &= 7 & (3 \rightarrow 4) \end{aligned}$$

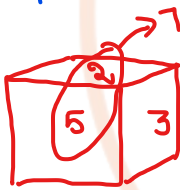
General
(Sum of opposite Face $\neq 7$)
Sum of adjacent = 7



$$\begin{aligned} 1 &- 2/5/6 \\ 4 &- 2/5/6 \\ 3 &- 2/5/6 \end{aligned}$$

Types of question based on general dice:

1. Single position



opposite Face of,

$$\begin{aligned} 5 &\rightarrow 1/4/6 \\ 2 &\rightarrow 1/4/6 \\ 3 &\rightarrow 1/4/6 \end{aligned}$$

2. Two position: (No common)

No common value



(i)



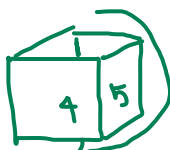
(ii)

$$\begin{aligned} 1 &\rightarrow 2/5/3 & 4 &\rightarrow 2/5/3 & 6 &- 2/5/3 \\ 2 &\rightarrow 1/6/4 & 5 &\rightarrow 1/6/4 & 3 &- 1/6/4 \end{aligned}$$

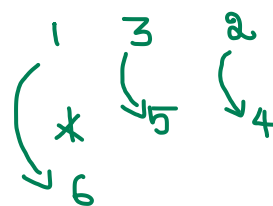
3. Two position: (one common)



(i)



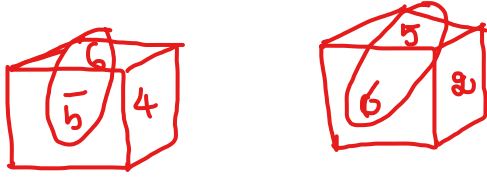
(ii)



$$\begin{aligned} 1 &\rightarrow 6 \\ 3 &\rightarrow 5 \\ 2 &\rightarrow 4 \end{aligned}$$



4. Two position (Two common)



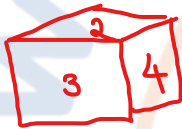
common - 6, 5

opposite = 4 → 3

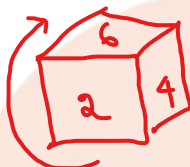
6 → 1/3

5 → 1/3

5. 3 or more position:



(a)



(b)

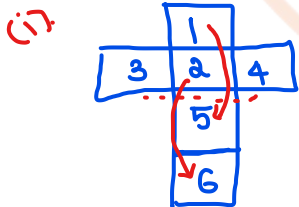


(c)

opposite
 1 → 4
 2 → 5
 3 → 6

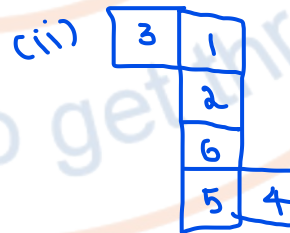
(b) (c)
 2 6 4
 ↓ ↓ ↓
 5 3 1

UNFOLDED DICE:



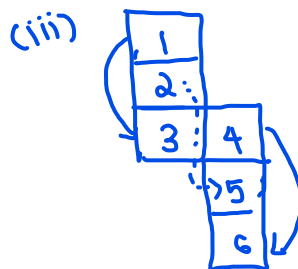
(i)

3 → 4
 2 → 6
 1 → 5



(ii)

3 → 4
 1 → 6
 2 → 5

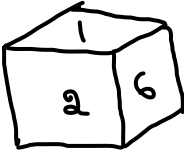


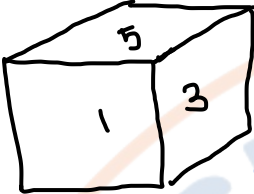
(iii)

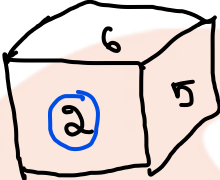
1 → 3
 4 → 6
 2 → 5

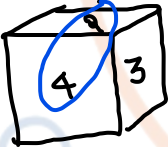
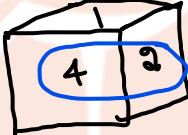


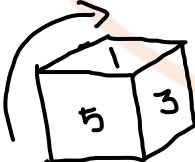
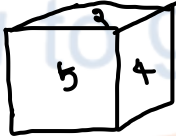
Exercise:

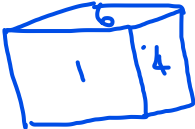
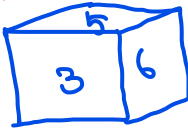
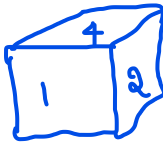
1.  General
= 7 $2 \rightarrow 3/4/5$

2.  $1 \rightarrow 6$
standard
 $\neq 7$

3. (i)  (ii) 
 $2 \rightarrow 4$
 $2 \quad 1 \quad 3$
 $4 \quad 6 \quad 5$

4. (i)  (ii) 
 $1 \rightarrow 3$

5.  
 $4 \rightarrow 3$
 $5 \quad 1 \quad 3$
 $5 \quad 2 \quad 4$

6. (a)  (b)  (c) 
 $6 \quad 4 \quad 1$
 $2 \quad 3 \quad 5$
 $1 \rightarrow 5$
 $2 \rightarrow 6$
 $3 \rightarrow 4$

