GATE-2023 CRASH COURSE

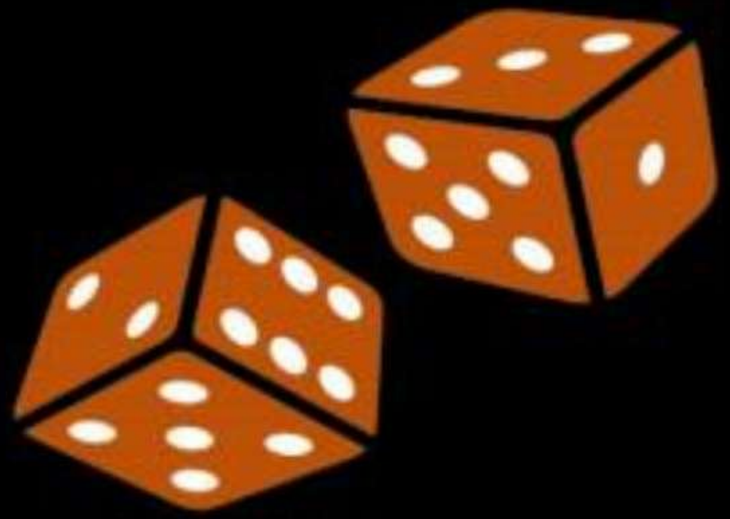
GENERAL APTITUDE

DICES (SPATIAL)

lecture - 10

AMULYA RATAN SIR

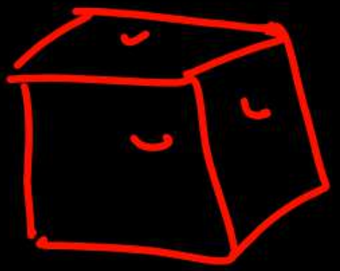
SPATIAL (DICES)



- Standard Dice:

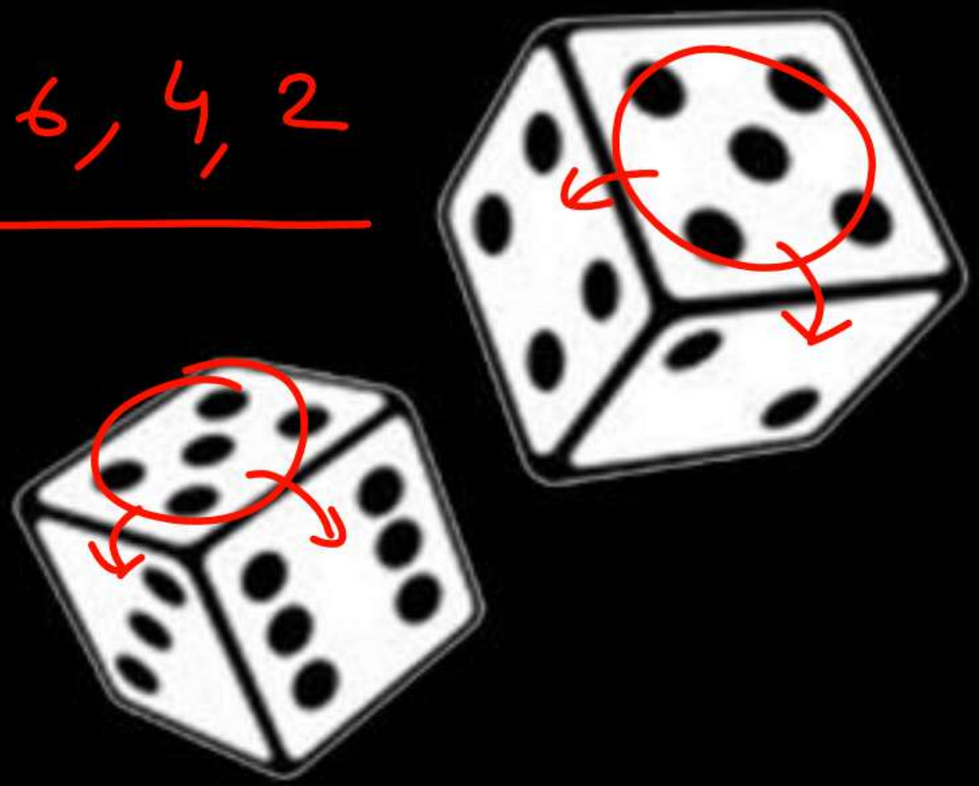
opp face

Sum = 7

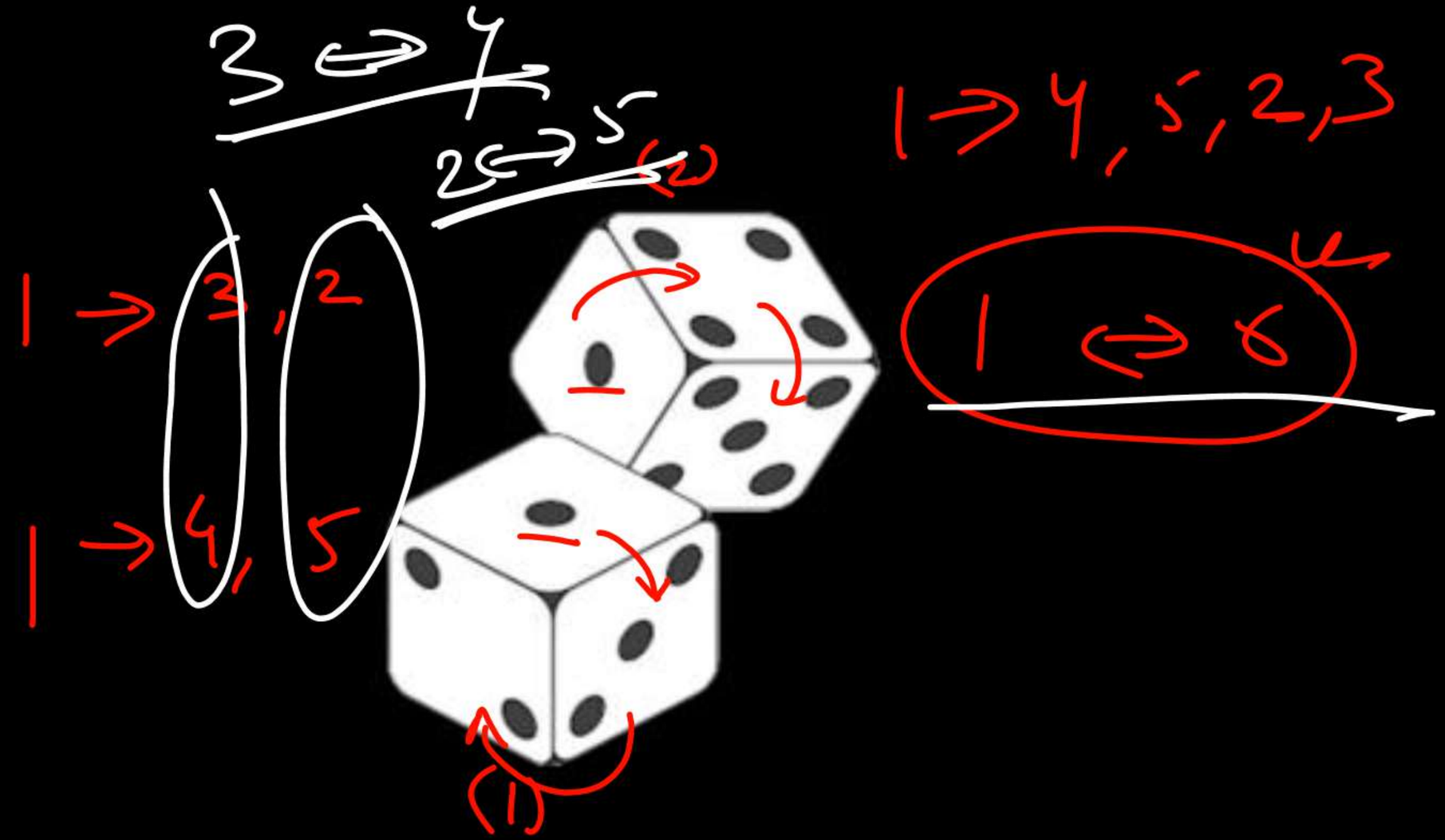


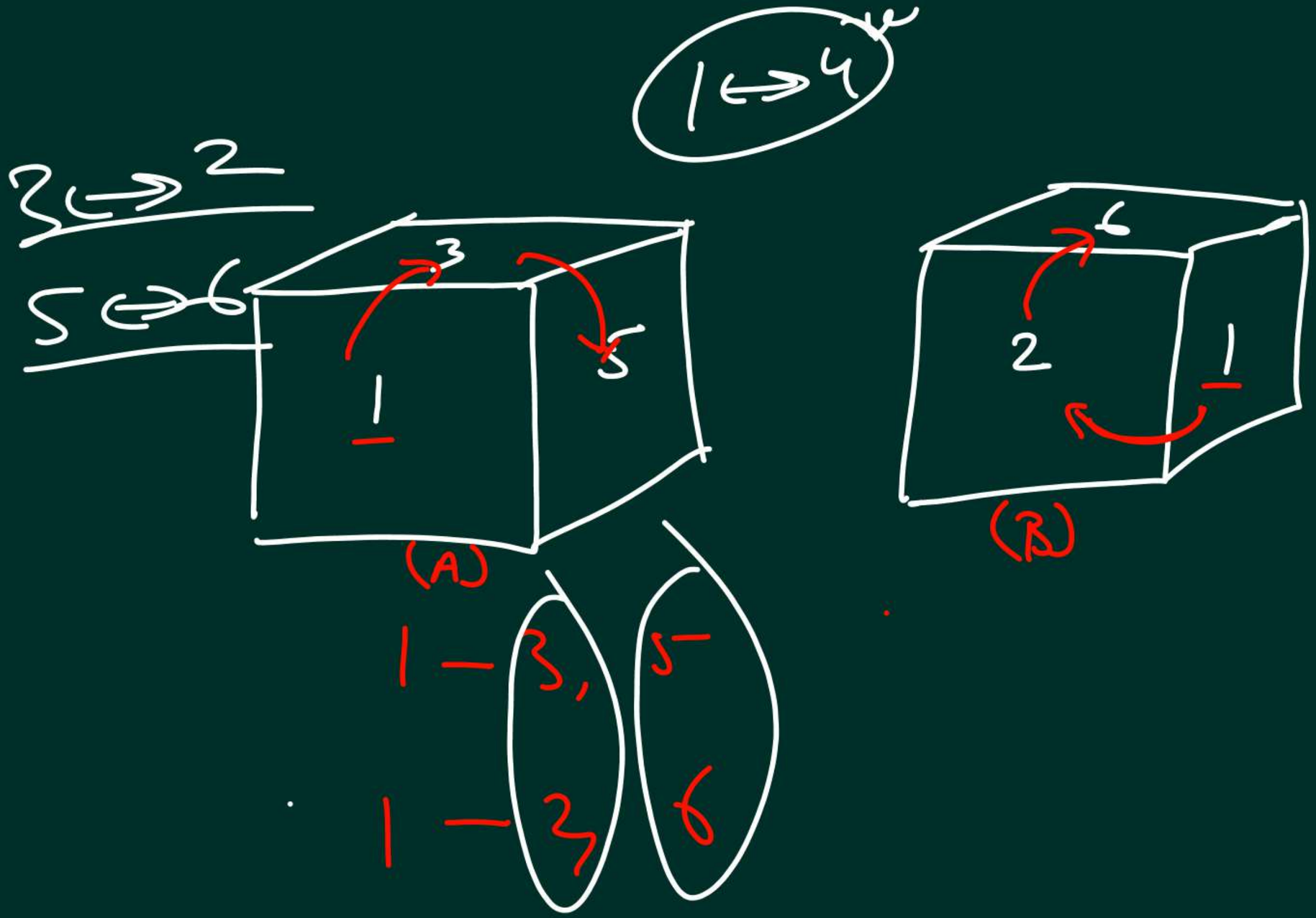
- General Dice:

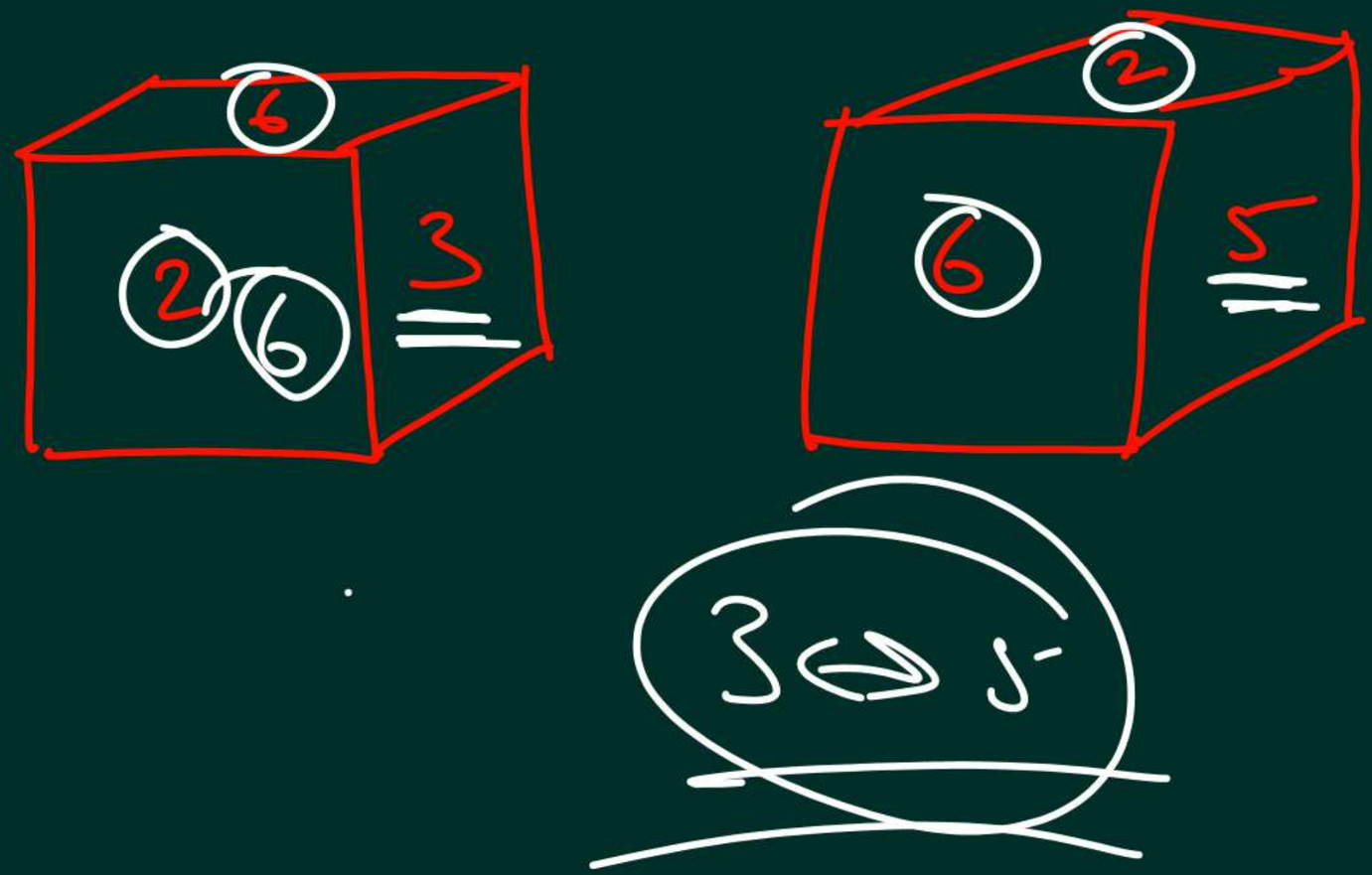
5 → 3, 6, 4, 2

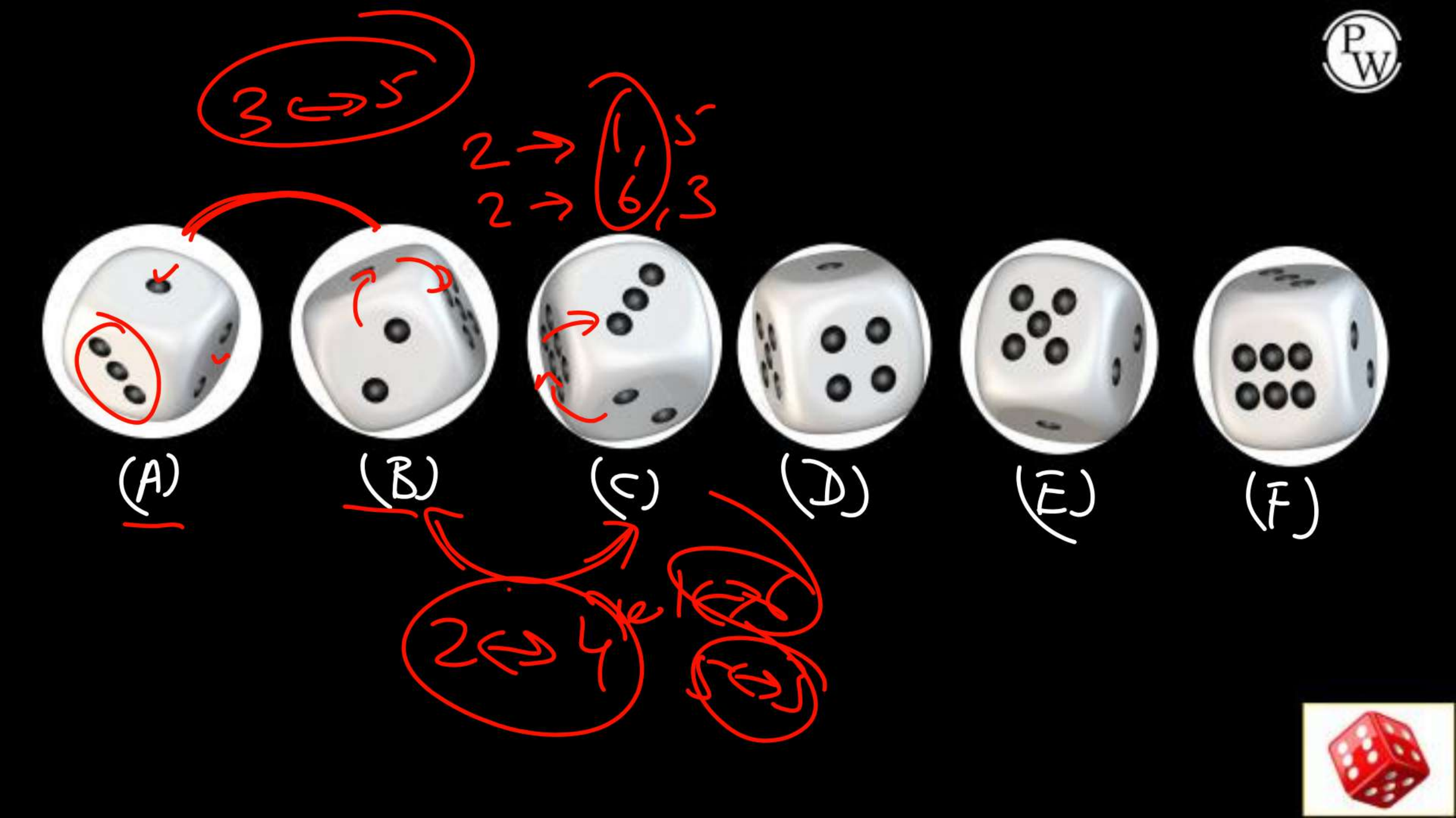


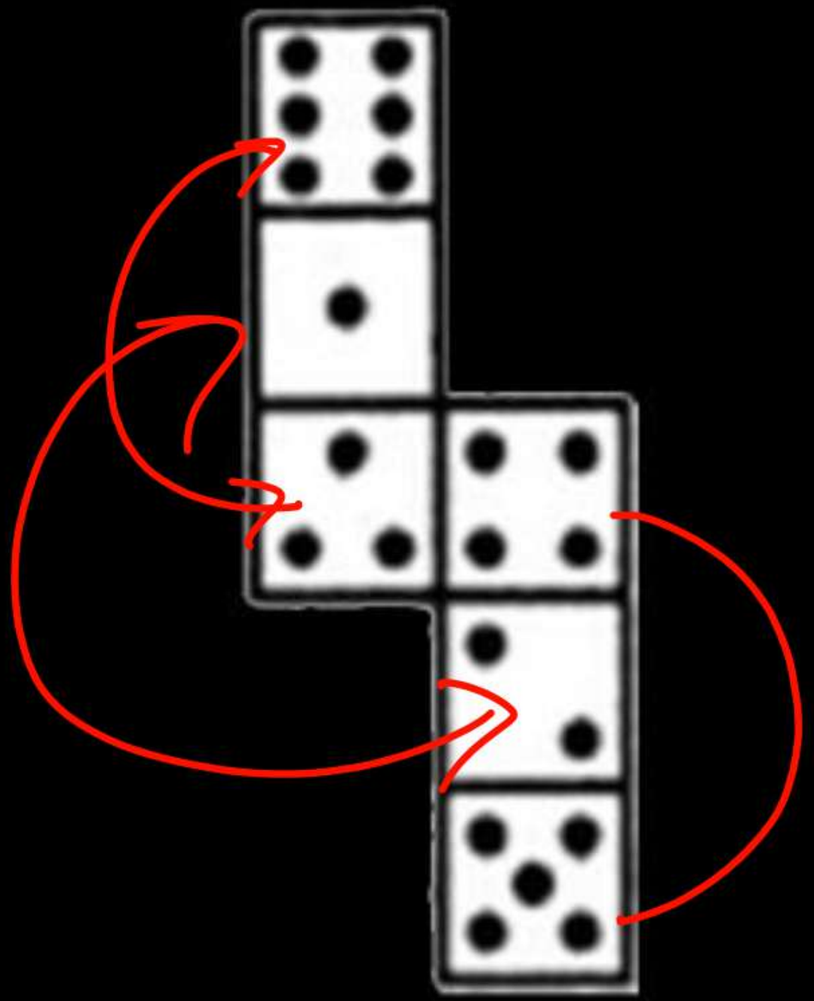
5 ⇔ 1


3 ⇔ 4
2 ⇔ 5
1 ⇒ 3, 2
1 ⇒ 4, 5
1 ⇒ 4, 5, 2, 3
1 ⇔ 6


1↔4
3↔2
5↔6
3
5
1
(A)
2
6
1
(B)
1 — 3, 5
1 — 3 6




(A)
(B)
(C)
(D)
(E)
(F)



$6 \leftrightarrow 3$

$4 \leftrightarrow 5$

$1 \leftrightarrow 2$

Brainstorming 1

When the following figure is folded to form a cube, how many dots lie opposite the face bearing five dots?

A 1

B 2

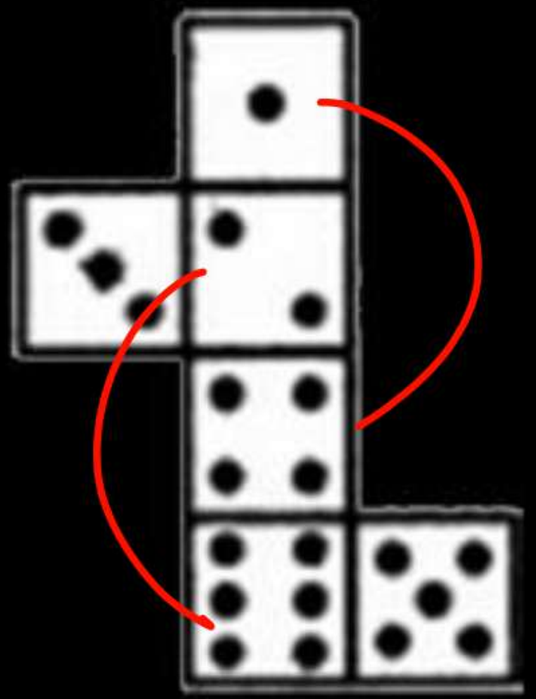
C 3

D 4

1 ⇔ 4

2 ⇔ 6

3 ⇔ 5



Brainstorming 2

F ↔ B

E ↔ C

A ↔ D

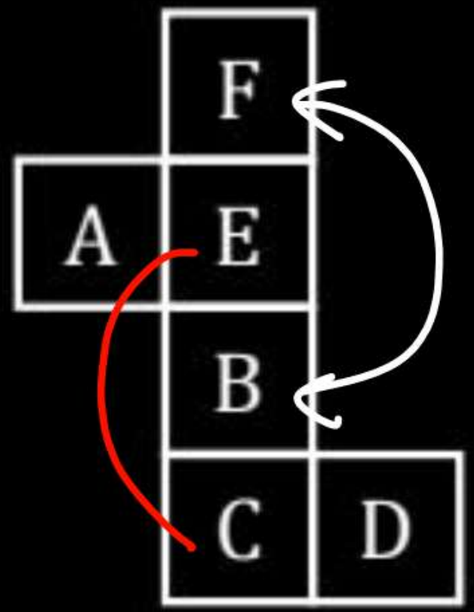
Which cube can be formed by folding the given shape on the ~~left~~ Right?

A

C

B

D

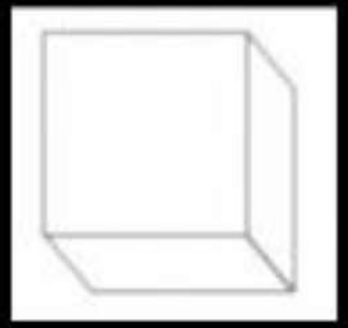


Brainstorming 3

Which cube can be formed by folding the given shape on the left?

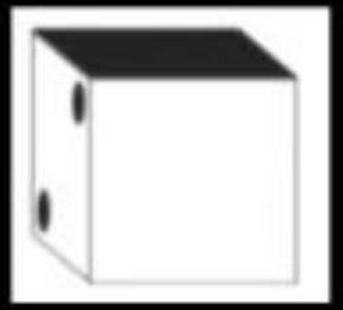
A

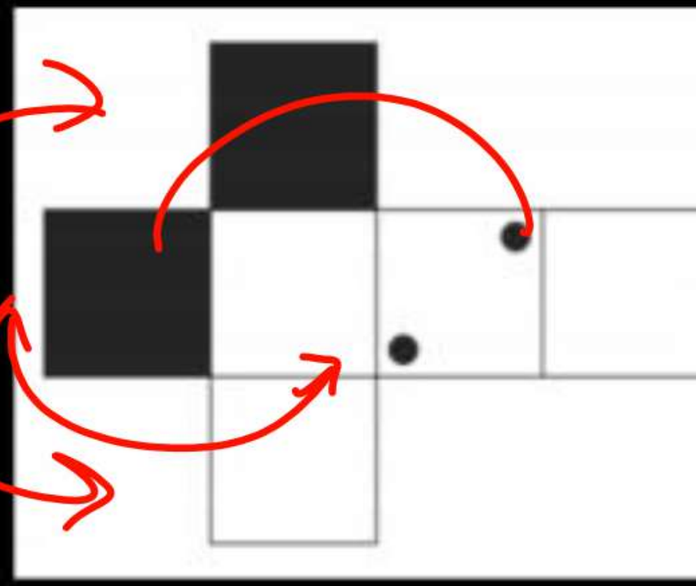
B



C

D

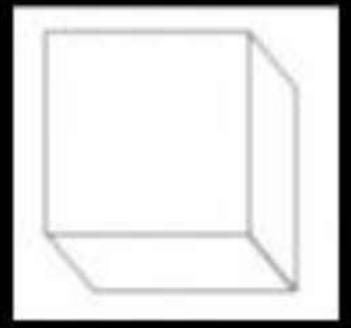




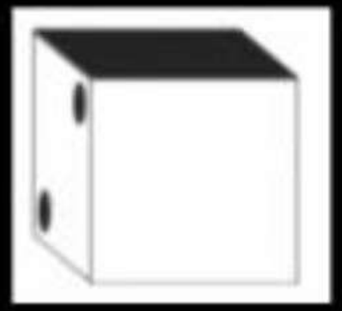
Brainstorming 3

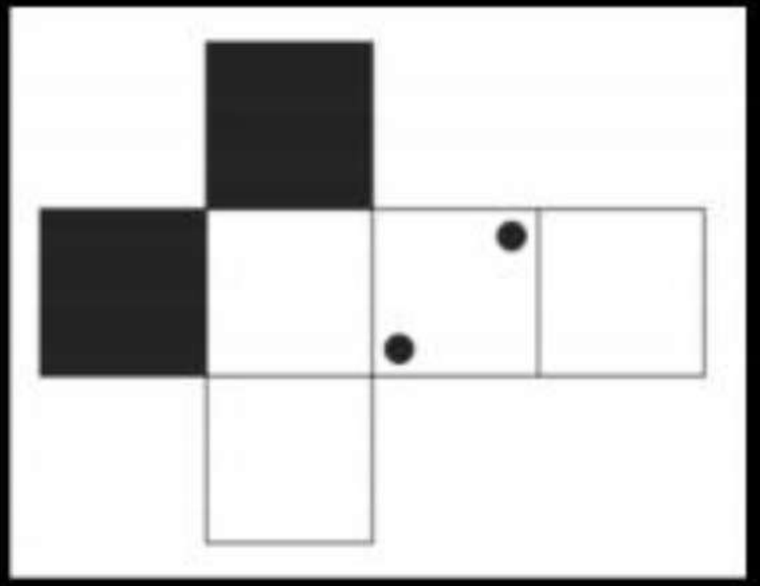
Which cube can be formed by folding the given shape on the left?

A 

B 

C 

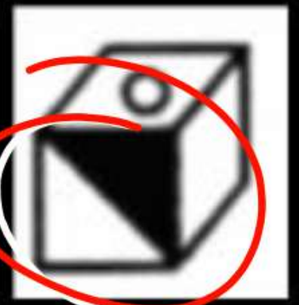
D 



Brainstorming 4

Which cube can be formed by folding the given shape on the left?

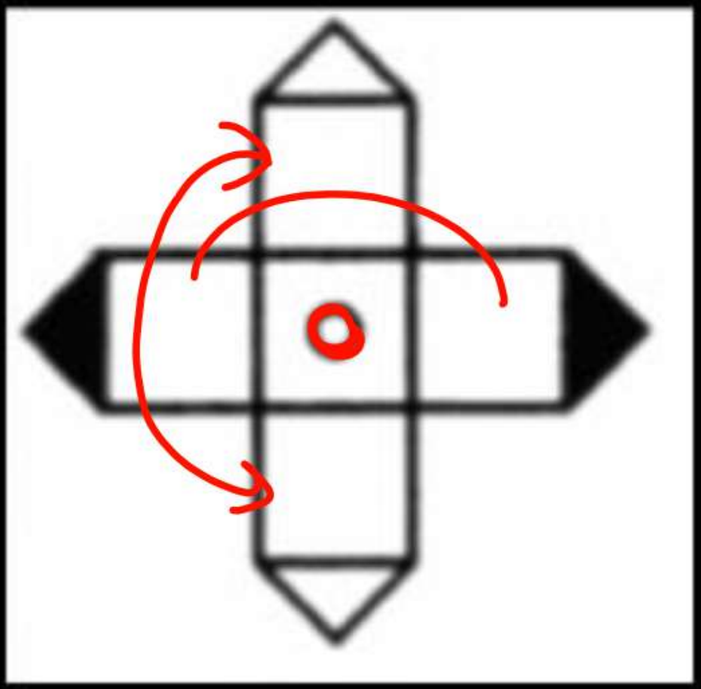
A



B

C

D



Brainstorming 5

Observe the dots on a dice (one to six dots) in the following figures. How many dots are contained on the face opposite to that containing four dots?

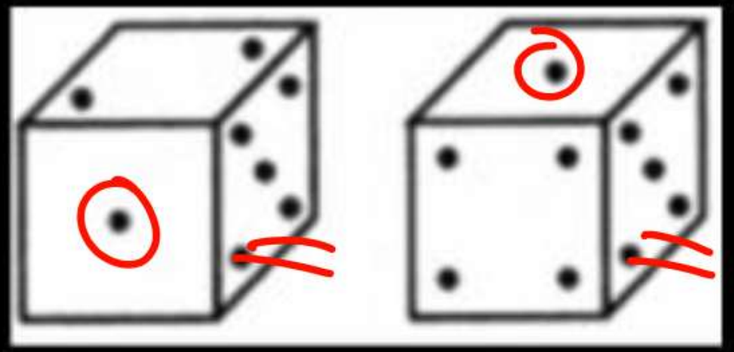
2 ⇔ 4

A 2

B 3

C 6

D Can't be determined

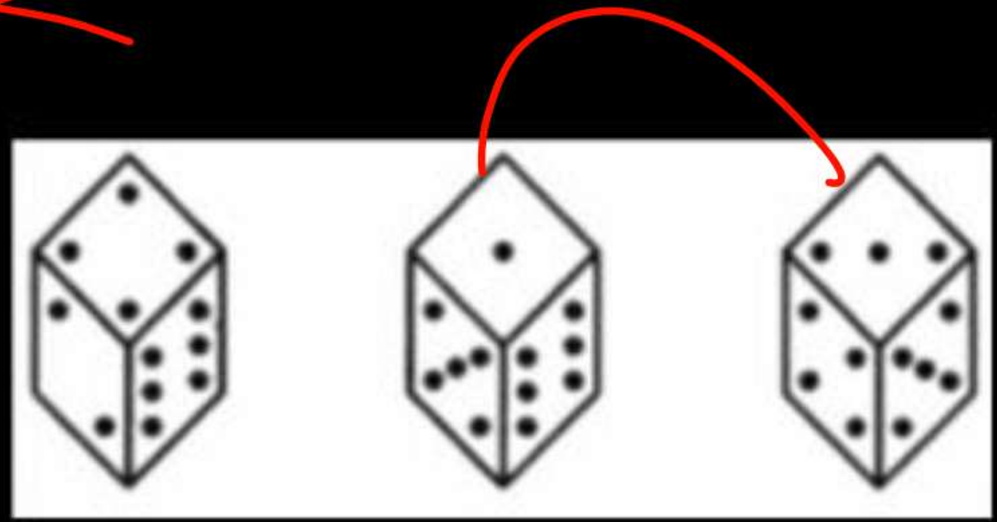


Brainstorming 6

Three different positions of a dice are shown below. How many dots lie opposite 2 dots?

5 ⇒ 1, 6, 3, 4

5 ⇒ 2



A 1

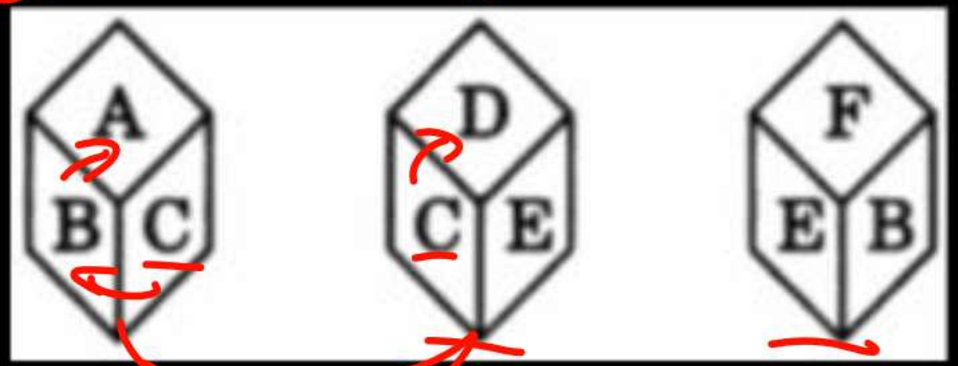
B 3

C 5

D 6

Brainstorming 7

The six faces of a dice have been marked with alphabets A, B, C, D, E and F respectively. This dice is rolled down three times. The three positions are shown as:



Find the alphabet opposite A.

(A) C
(B) D
(C) E
(D) F

Brainstorming 8

Two positions of a dice are shown below. If the face with 1 dot is at the bottom, then the number of dots on the top is

A 2

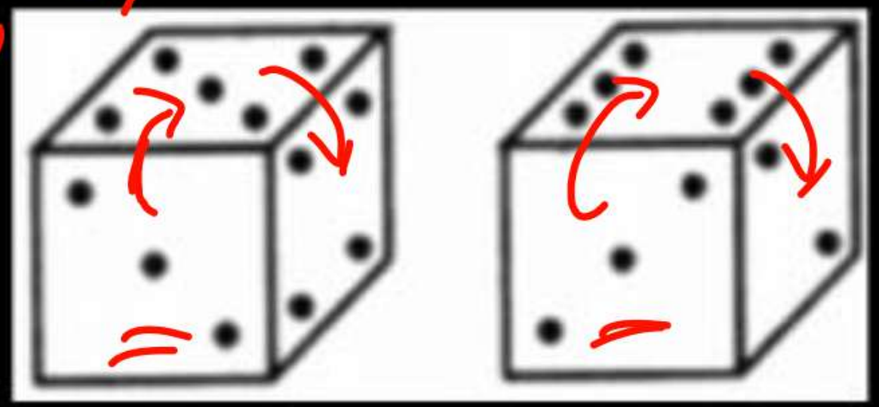
B 3

C 4

D 5

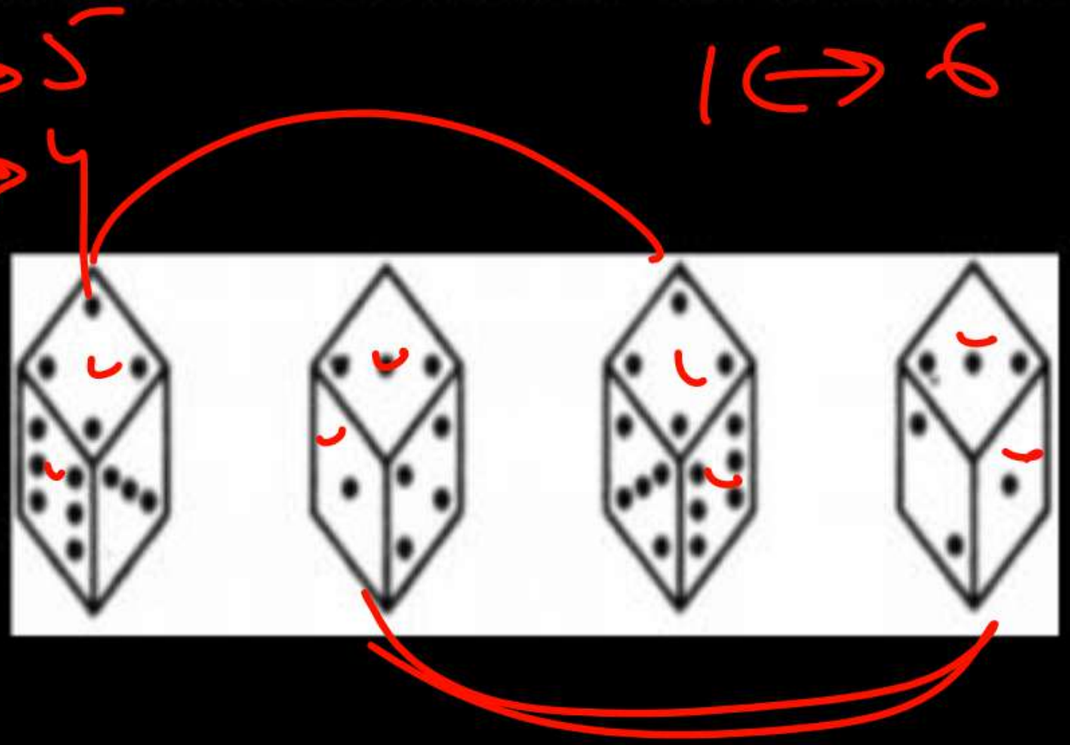
3 → 5, 4, 6, 2

3 ⇔ 1



Brainstorming 9

Two positions of a dice are shown below. If the face with 1 dot is at the bottom, then the number of dots on the top is



A 2

B 4

C 5

D 6

Brainstorming 10

A cube has six different symbols drawn over its six faces. The symbols are dot, circle, triangle, square, cross and arrow. Three different positions of the cube are shown in figures X, Y, and Z.

Which symbol is opposite the dot?

(x) (y) (z)

A Circle

B Triangle

C Arrow

D Cross

Brainstorming 11

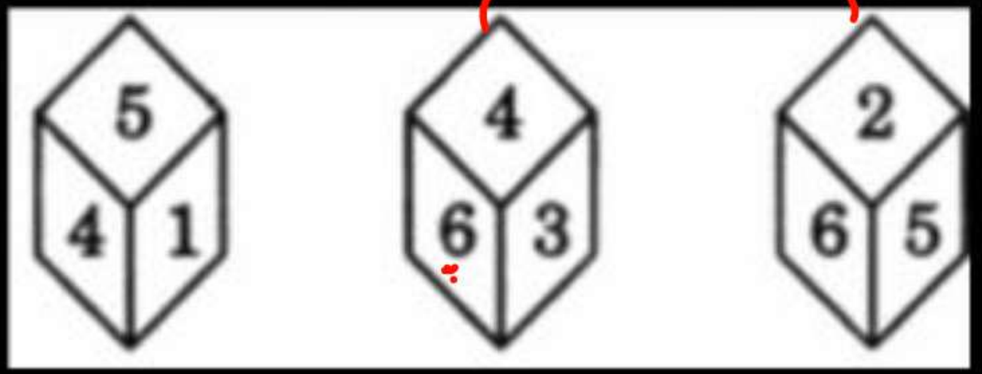
Three different positions X, Y and Z of a dice are shown in the figures given below. Which number lies opposite 6?

A 1

B 2

C 4

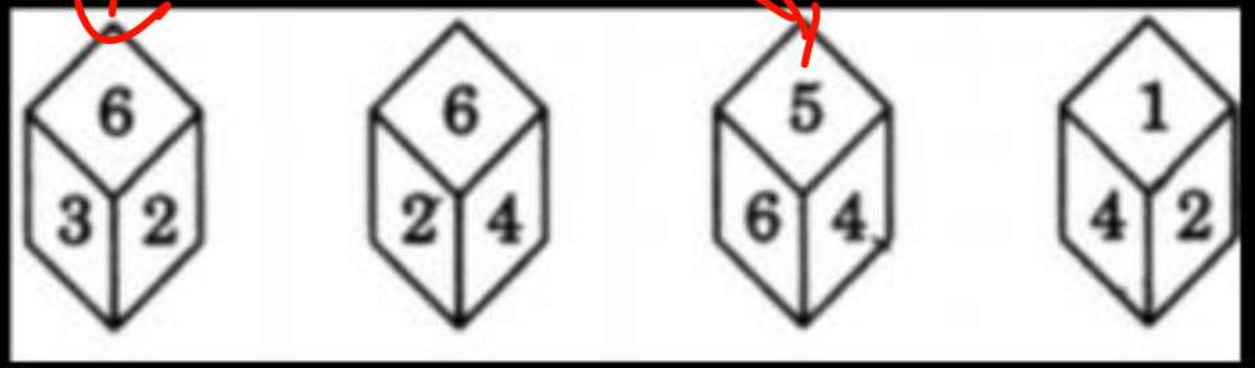
D 5



(x) (y) (z)

Brainstorming 12

The four different positions of dice are given below: Which number is on the face opposite 6?



A 1

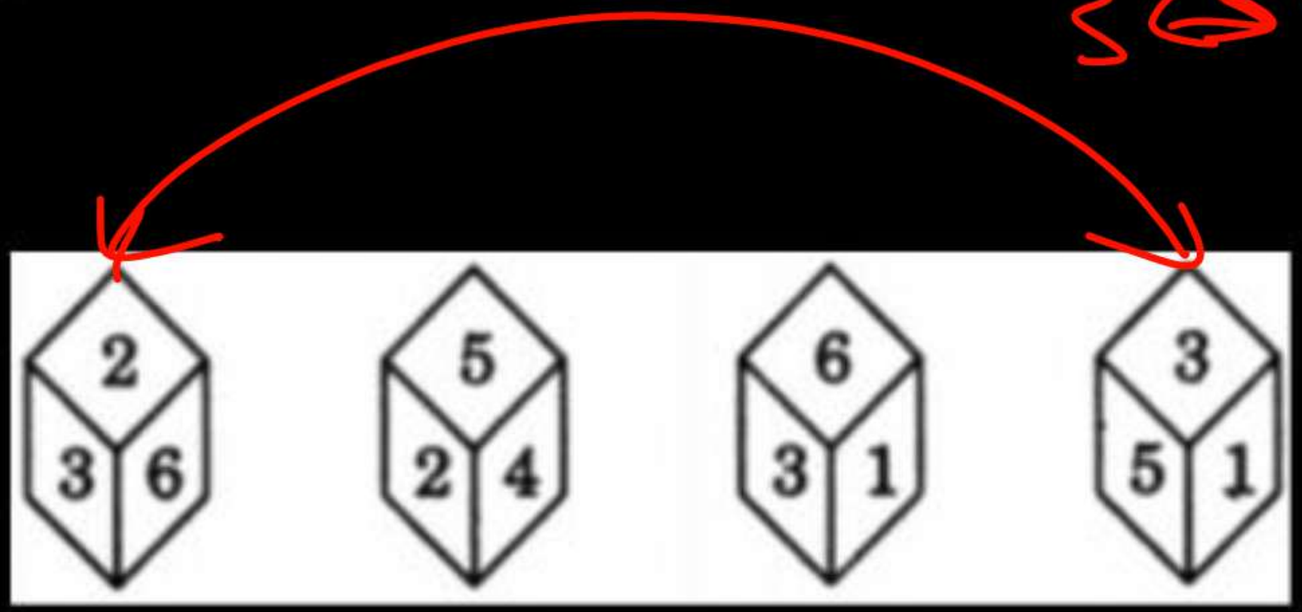
B 2

C 3

D 4

Brainstorming 13

What is the opposite 3, if four different positions of dice are as shown below?



A 6

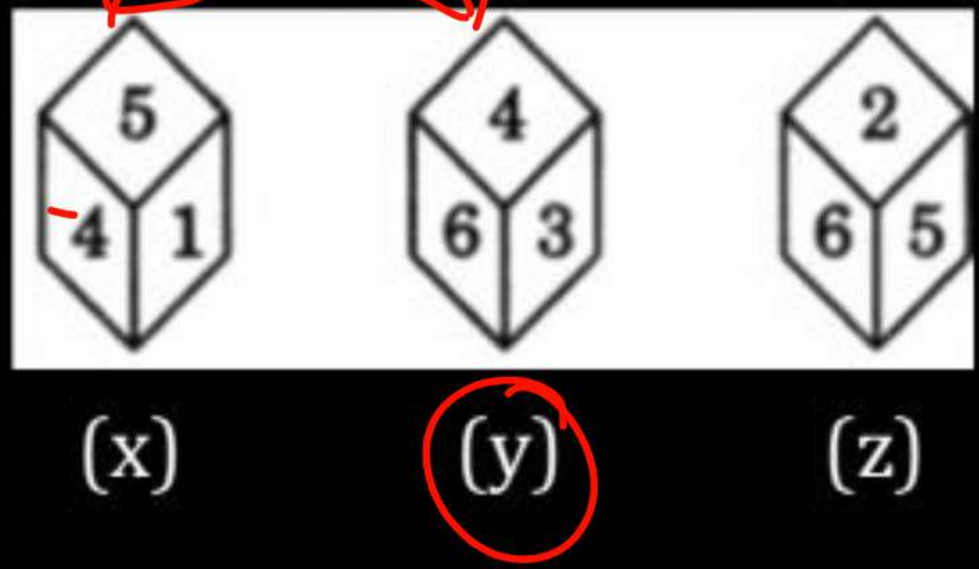
B 4

C 3

D 2

Brainstorming 14

Three different positions X, Y and Z of a dice are shown in the figures given below. Which number lies at the bottom face in position Y?



A 1

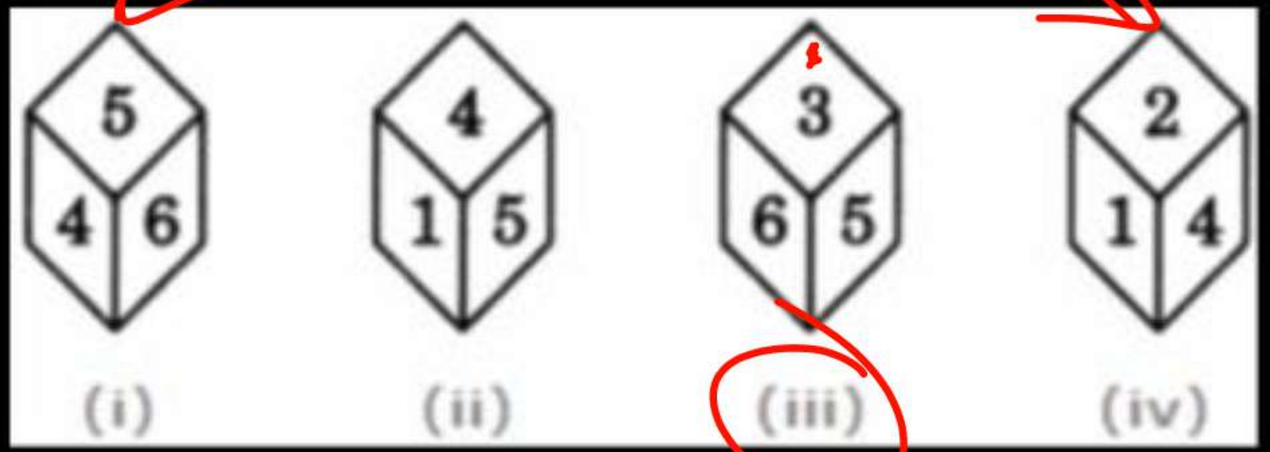
B 2

C 5

D Can't be determined

Brainstorming 15

Four positions of a dice are shown below. What number must be at the bottom face when the dice is in the position as shown in the figure(iii)



A 1

B 2

C 4

D 6

Brainstorming 16

The four different positions of dice are given below: Which number is on the face opposite 6?

(x) (y) (z)

A. 1 and 4

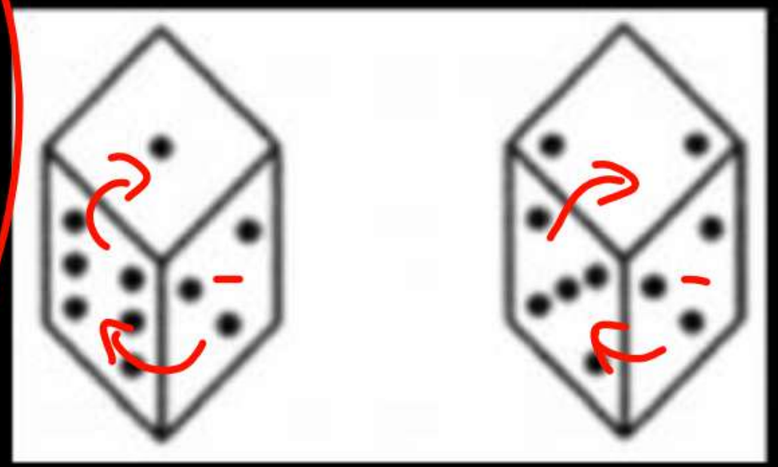
B. 1 and 3

C. 4 and 3

D. 1 and 2

Brainstorming 17

Two positions of a dice are shown below: When 2 is at the bottom, what number will be at the top?



A 6

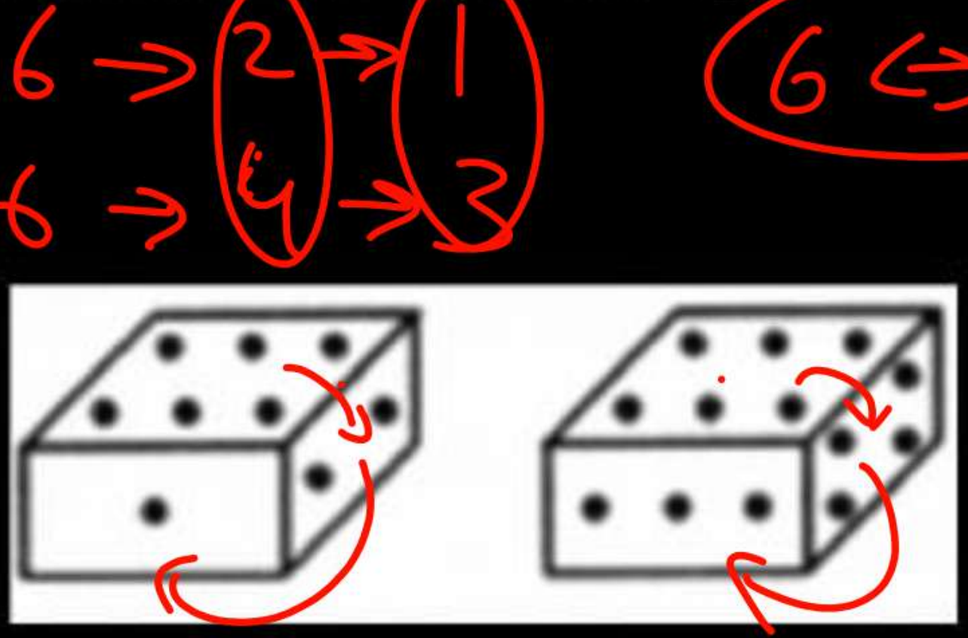
B 4

C 1

D Can't be determined

Brainstorming 18

Two positions of a dice are shown below: When 2 is at the bottom, what number will be at the top?



A 1

B 2

C 4

D 5

Brainstorming 19

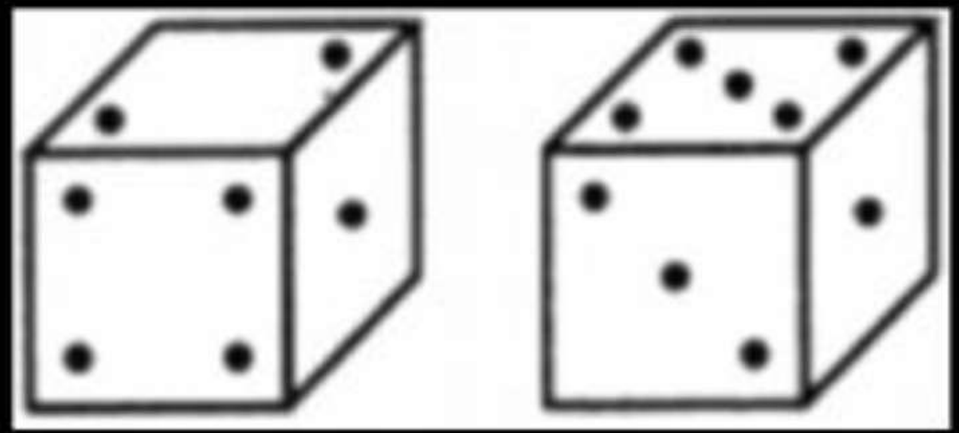
Two positions of a cube are shown below. When the number 4 will be at the bottom, then which number will be at the top?

A 3

B 5

C 6

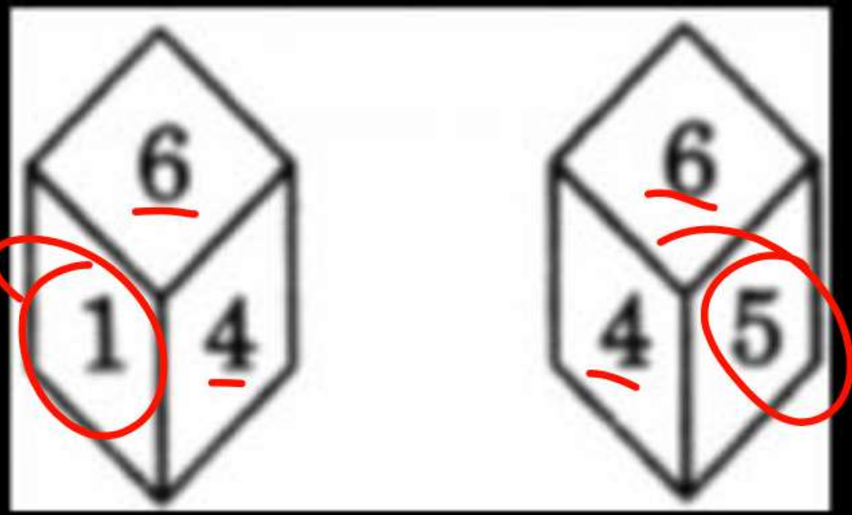
D Can't be determined



Brainstorming 20

Two positions of a dice are shown below. When number 1 is on the top, what number will be at the bottom?

1 ⇒ 5



A 2

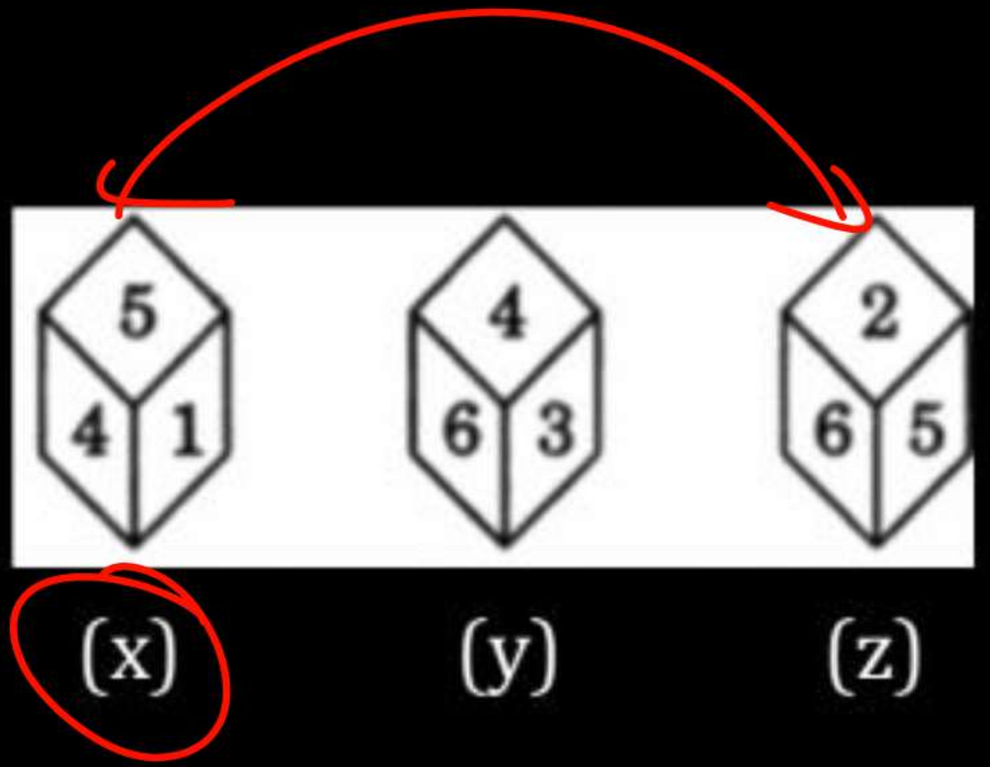
B 3

C 5

D Can't be determined

Brainstorming 21

Three different positions X, Y and Z of a dice are shown in the figures given below. Which number lies at the bottom face in position X?



A 2

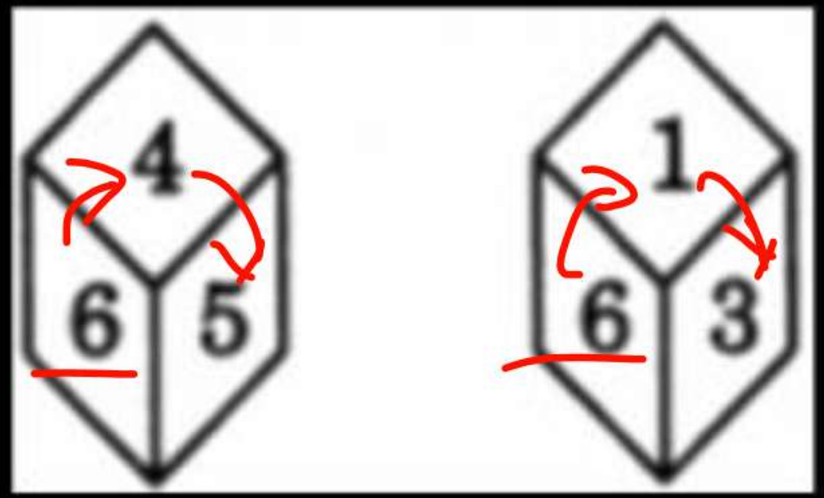
B 3

C 6

D Can't be determined

Brainstorming 22

Two positions of a dice are shown below. Identify the number at the bottom when the top is '3'?



A 2

B 4

C 5

D Can't say

Brainstorming 23

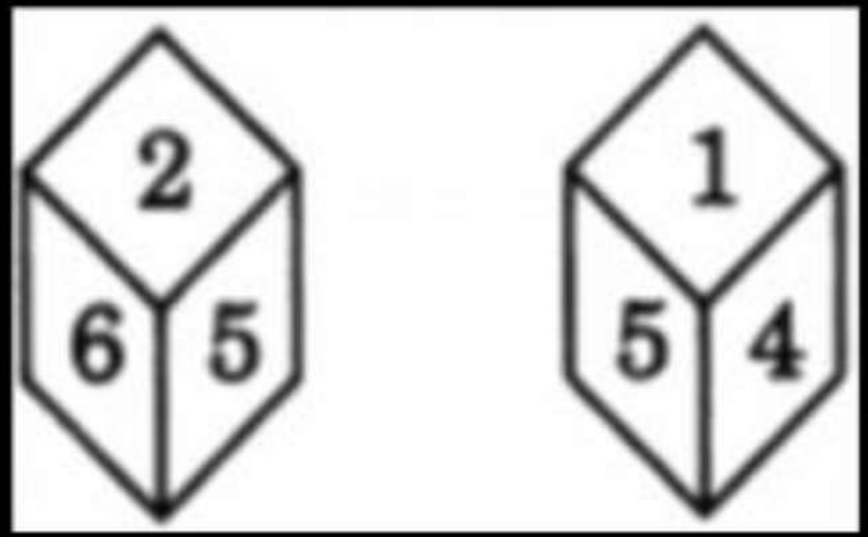
What number is opposite 3 in the figure shown below? The given two positions are of the same dice whose each surface bears a number among 1, 2, 3, 4, 5 and 6.

A 2

B 4

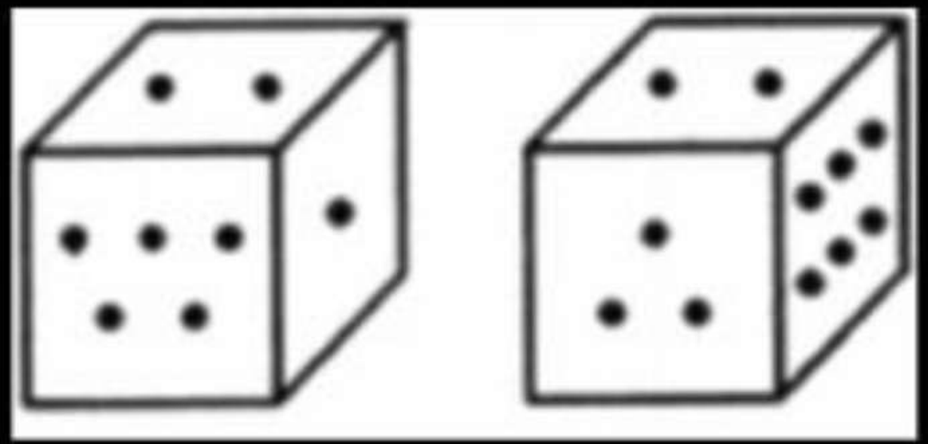
C 5

D 6



Brainstorming 24

Two positions of a block are given below. When 1 is at the top, which number will be at the bottom?



A 2

B 3

C 4

D 6

Brainstorming 25

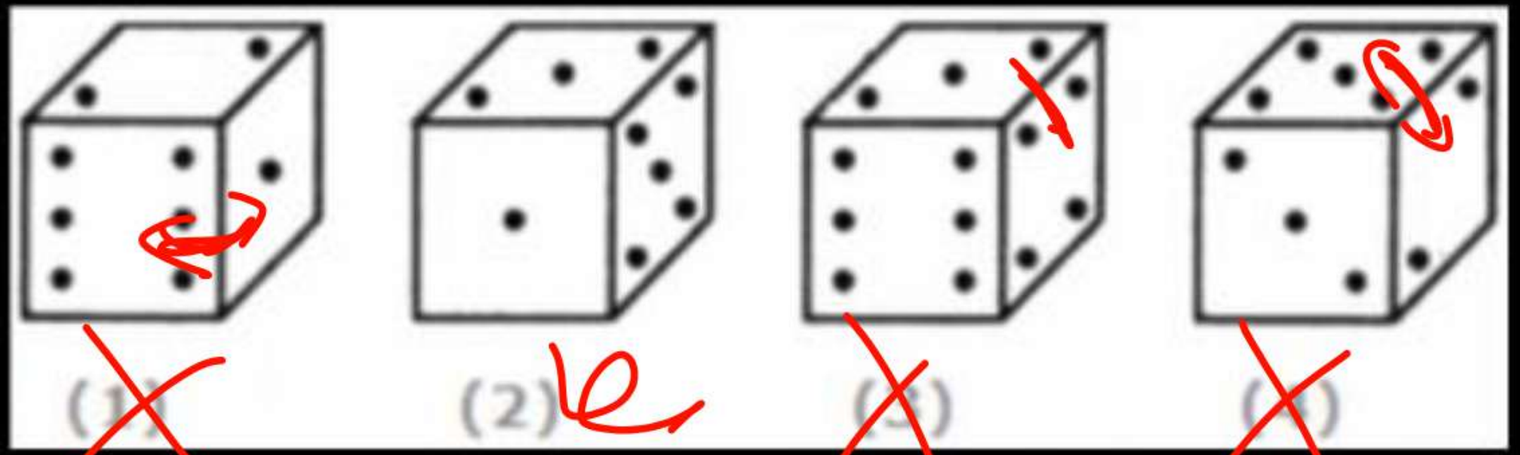
If the total number of dots on opposite faces of a cubical block is always 7, find the figure which is correct.

A Fig 1

B Fig 2

C Fig 3

D Fig 4




thank you