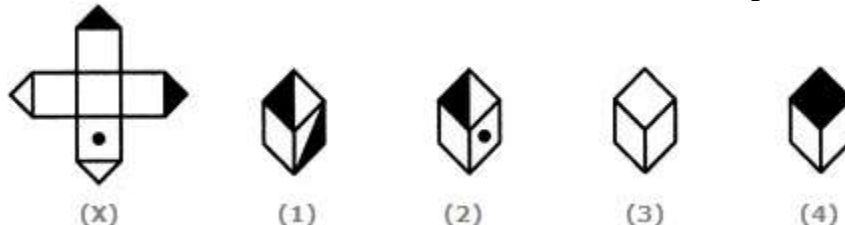





CUBES AND DICES

1. Choose the box that is similar to the box formed from the given sheet of paper (X).

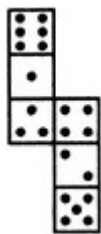


- (a) 1 and 2 only (b) 2 and 4 only (c) 2 and 3 only (d) 1 and 4 only

Explanation:

The fig. (X) is similar to the [Form VI](#). So, when a cube is formed by folding the sheet shown in fig. (X), then  is one of the faces of the cube. However, the cube in fig. (1) has two such faces and fig. (4) has a face which is completely shaded. So, these two cubes cannot be formed. Hence, only the cubes in figures (2) and (3) can be formed.

2. How many dots lie opposite to the face having three dots, when the given figure is folded to form a cube?

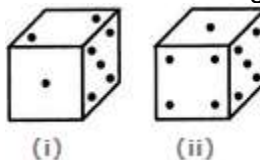


- (a) 2 (b) 4 (c) 5 (d) 6

Explanation:

The given figure is similar to [Form V](#). Therefore, when this figure is folded to form a cube then the face bearing six dots will lie opposite the face bearing three dots.

3. 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?



- (a) 2 (b) 3 (c) 6 (d) cannot be determined



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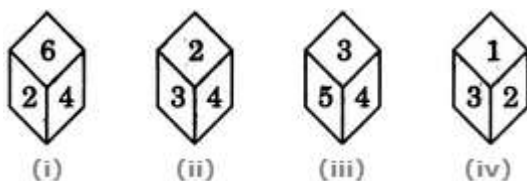
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Explanation: We shall assume the dice in fig. (ii) to be rotated so that the 5 dots appear at the same position as in fig. (i) i.e. on RHS face (i.e. on face II as per activity 1) and 1 dot appears at the same position as in fig; (i) i.e. on Front face (i.e. on face I). Then, from the, two figures, 2 dots appear on the top face (i.e. on face V) and 4 dots appear on the Bottom face (i.e. on face VI). Since, these two faces are opposite to each other, therefore, two dots are contained on the face opposite to that containing four dots.

4. A dice is thrown four times and its four different positions are shown below. Find the number on the face opposite the face showing 2.

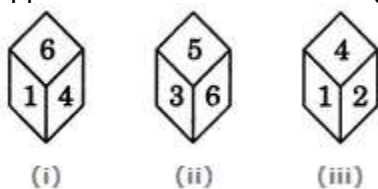


- (a) 3 (b) 4 **(c) 5** (d) 6

Explanation:

From figures (i), (ii) and (iv) We conclude that 6, 4, 3 and 1 lie adjacent to 2. Hence, 5 must lie opposite 2.

5. Three positions of a dice are given. Based on them find out which number is found opposite the number 2 in the given cube.



- (a) 6** (b) 5 (c) 3 (d) 1

Explanation: From figures (i) and (ii), we conclude that the numbers 1, 4, 3 and 5 lie adjacent to the number 6. Clearly, the number 2 lies opposite 6 and conversely 6 lies opposite 2.



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INSERTING THE MISSING CHARACTER

1. Which one will replace the question mark ?

A ₂	C ₄	E ₆
G ₃	I ₅	?
M ₅	O ₉	Q ₁₄

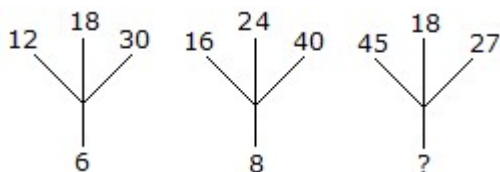
(a) L₁₀

(b) K₁₅

(c) I₁₅

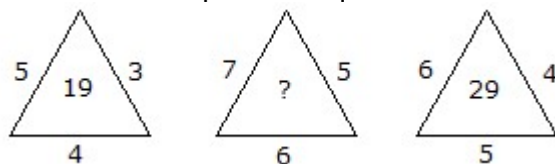
(d) K₈

2. Which one will replace the question mark ?



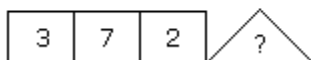
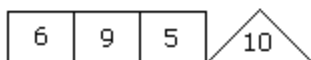
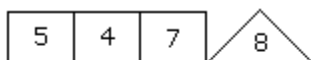
(a) 18 (b) 12 (c) 9 (d) 6

3. Which one will replace the question mark ?



(a) 25 (b) 37 (c) 41 (d) 47

4. Which one will replace the question mark ?



(a) 1 (b) 4 (c) 3 (d) 6



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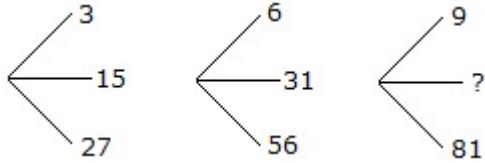
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5. Which one will replace the question mark ?



(a) 45 (b) 41 (c) 32 (d) 40