Chapter 15

Visualising Solid Shapes.
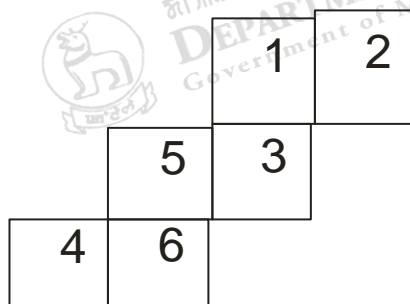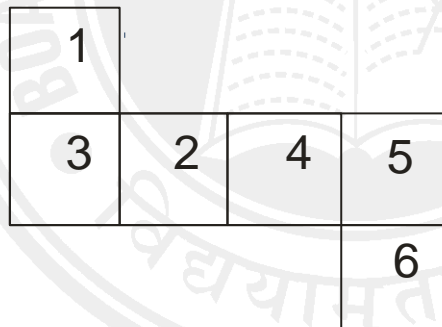
SOLUTIONS:

EXERCISE 15.1

Q1. Identify the nets which can be used to make cubes .

Ans :   (ii) , (iii) , (iv) and (vi)

Q2. Dice are cubes with dots on each opposite face . Opposite faces of a die always have a total of seven dots on them. Insert suitable numbers in the blanks remembering that the number on the opposite faces should total to 7 .

Ans :

Q3 Can this be a net for a die ? Explain your answer.

Ans : No. The sum of numbers in opposite faces should be 7 . Two pair of faces are not giving 7 in total.

4. Here is an incomplete net for making a cube . Complete it in at least two different ways .

Ans :

Q5. Match the nets with appropriate solids.

Ans :   (a) ⟶ (ii)
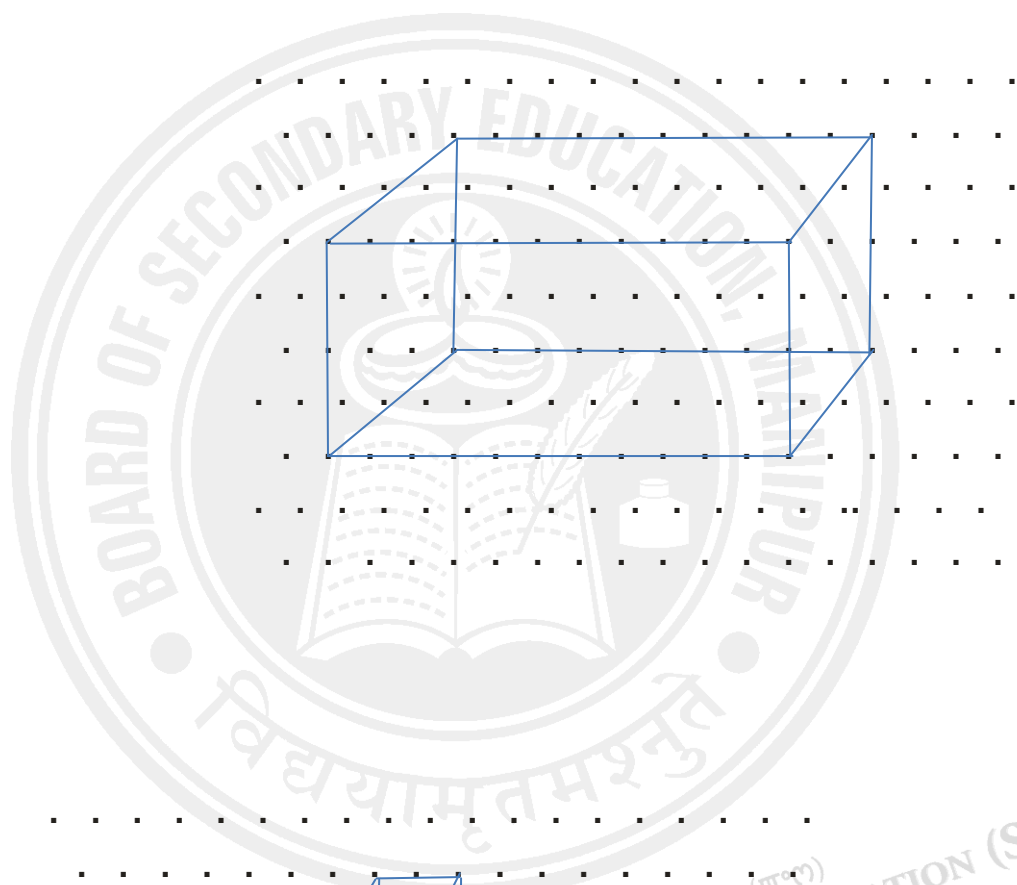
(b) ⟶ (iii)
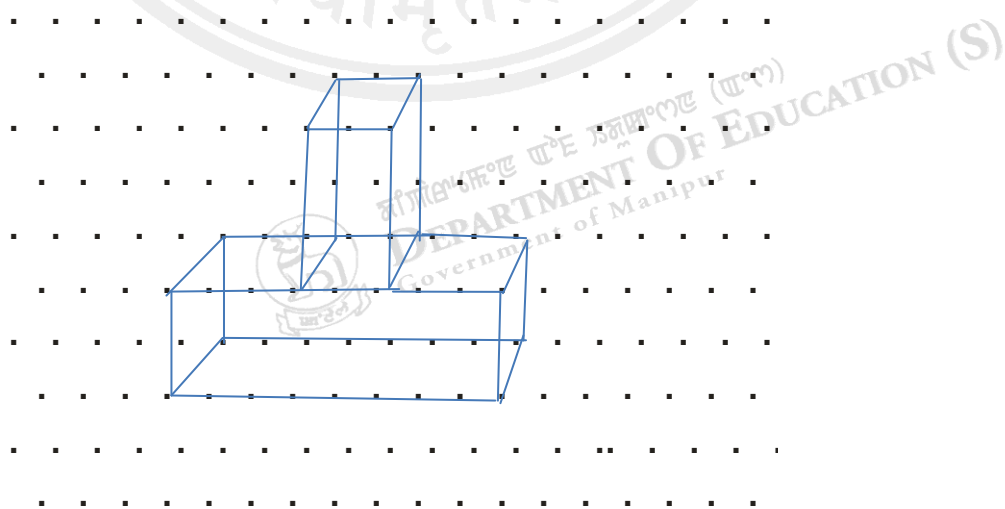
(c) ⟶ (iv)

(d) ⟶   (i)

Exercise 15.2

Q1 Use isometric dot paper and make an isometric sketch for each one of the given shapes:

Ans :

(i)

(ii)

(iii)

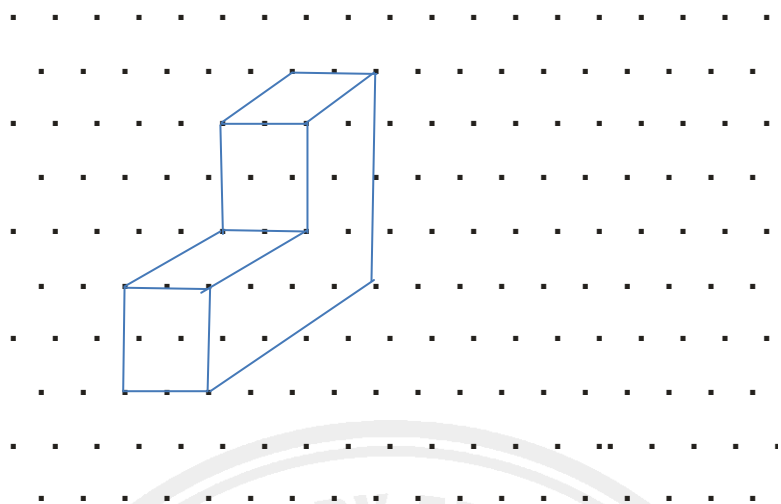

(iv)

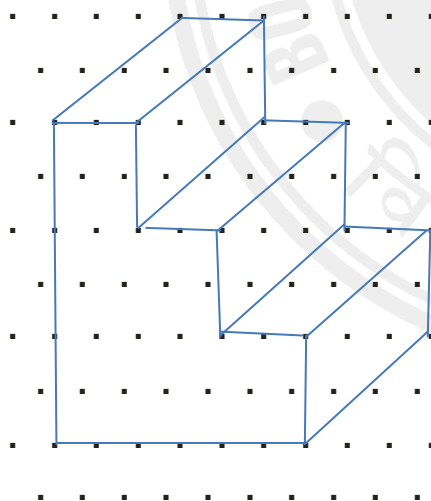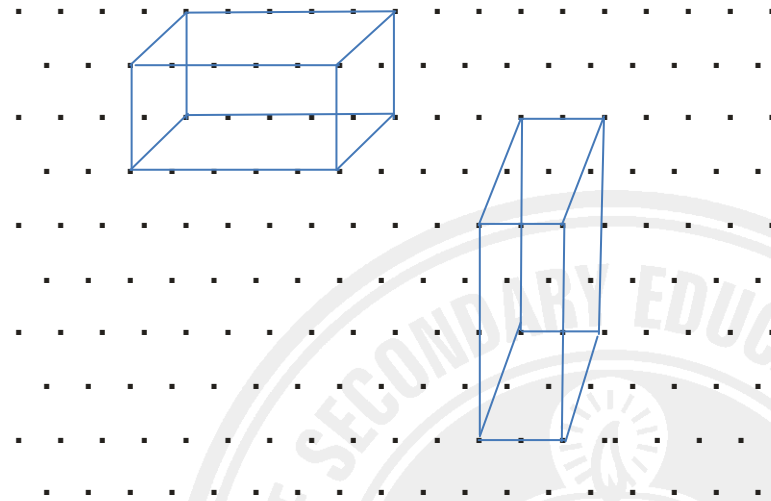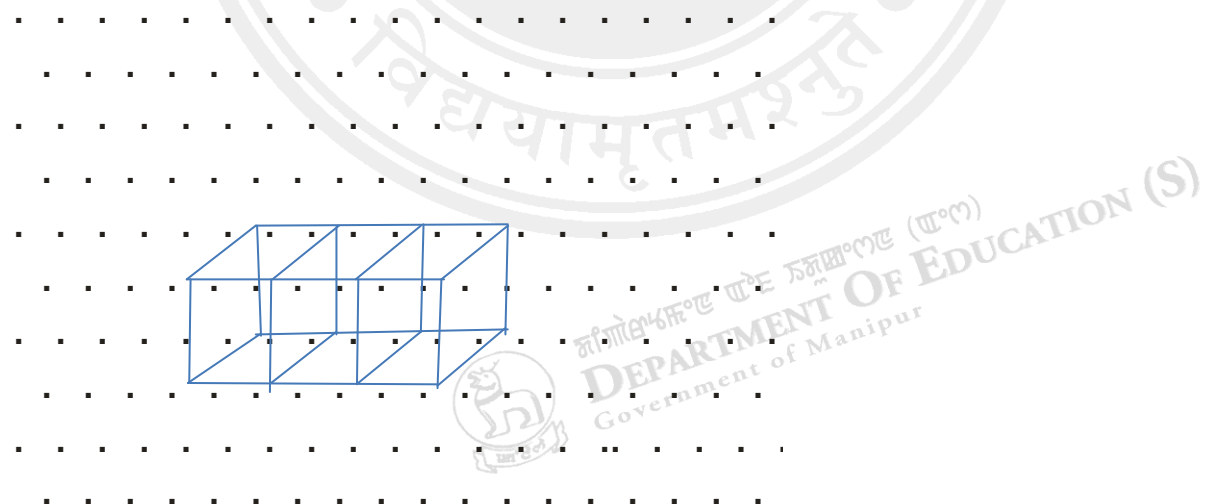Q2. The dimensions of a cuboid are 5cm , 3 cm , and 2cm . Draw three different isometric sketches of this cuboid .
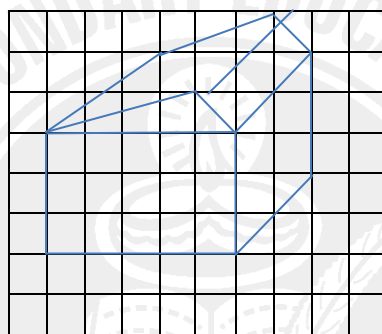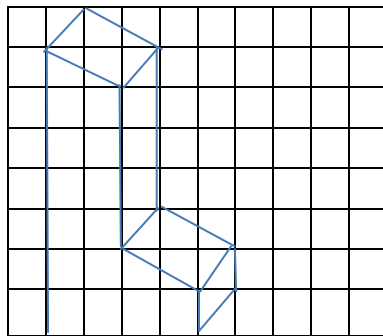
Ans :

Q3. Three cubes of a cuboid with 2cm , 3cm , and 2cm. Sketch an oblique or isometric sketch of this cuboid .

Ans :

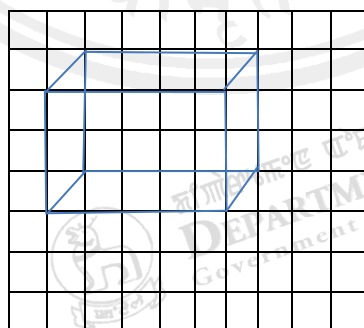Q4. Make an oblique sketch for each one of the given isometric shapes :

Ans :

Q5. Give (i) an oblique aketch (ii) an isometric sketch for each
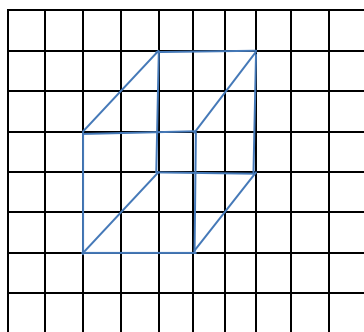
(a) A cuboid of dimension 5cm, 3cm and 2 cm.
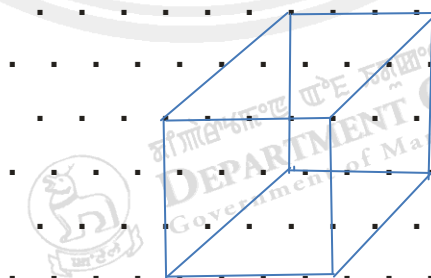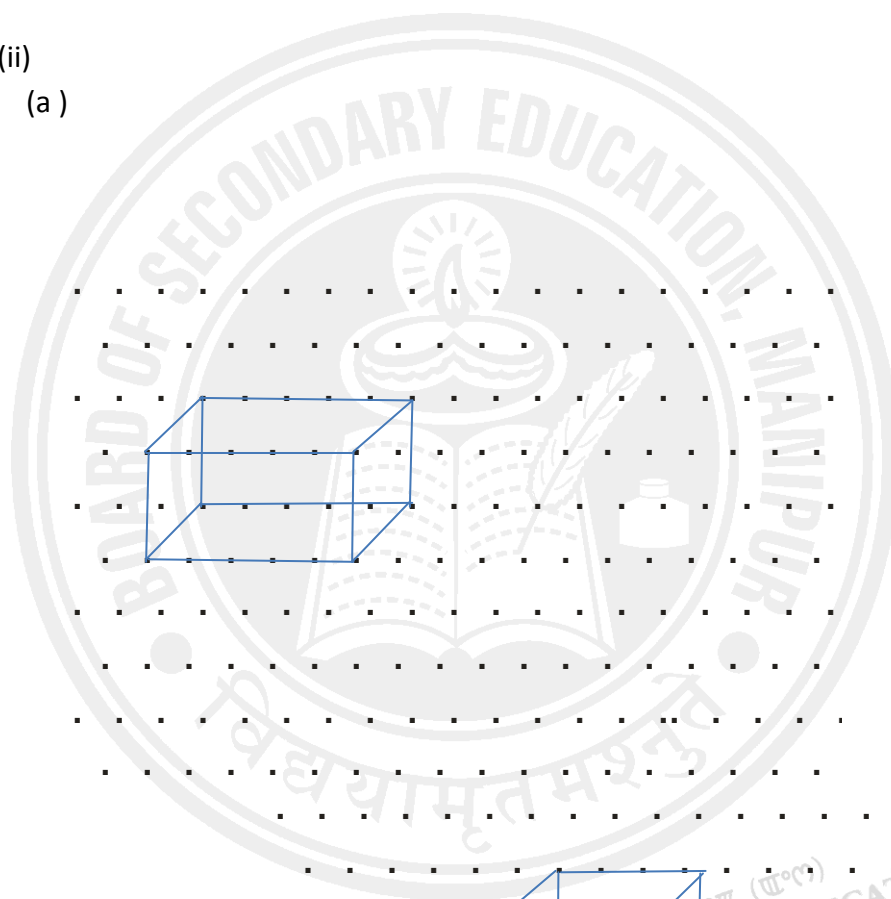
(b) A cube with an edge 4 cm long.

Ans :   (a)

(b)

(ii)
   (a)

   (b)

EXERCISE 15.3

Q1. What cross section do you get when you give (I) vertical cut (ii) horizontal cut

(a) a brick. Ans : rectangle in both cases

(b) a round apple. Ans : circle in both cases

(c) a die. Ans : square in cases

(d) a circular pipe. Ans : circle in vertical cut and rectangle in vertical cut

(e) an ice cream cone. Ans ; circle in horizontal and triangle in vertical

***CROSS SECTION : When a body is cut vertically or horizontally , the face we get is called the cross section.

Exercise 15.4

Q1. Name the shape of the shadows obtained.

Ans ; (i) Ans : circle   (ii) Ans : rectangle   (iii) rectangle

Q2. Here are the shadows of some 3 D objects , when seen under the lamp of an overlamp. Identify the solid .

Ans : (i) Ans : a ball   (ii) Ans ; a cube   (iii) a cone   (iv) cuboid .

Q3. Examine if the following statements are true :

Ans : (i) Ans : false   (ii) Ans : false

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