

Visualising Solid Shapes

Exercise 15.1

1.

i) \rightarrow (f)

ii) \rightarrow (e)

iii) \rightarrow (b)

iv) \rightarrow (a)

v) \rightarrow (c)

vi) \rightarrow (d)

2.

i) Do not form cube

ii) Forms cube

iii) Forms cube

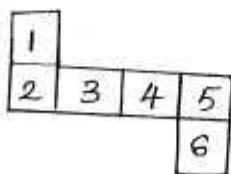
iv) Forms cube

v) Does not form cube

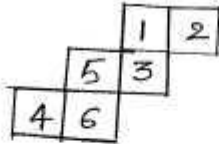
vi) Forms cube

3.

i)



ii)



4.

i) Yes

ii) No, because ~~one~~

Pairs of opposite faces are

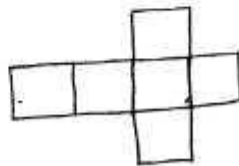
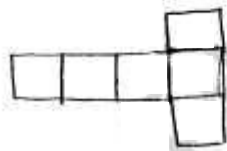
$$1, 4 \Rightarrow 1 + 4 = 5 \neq 7$$

$$2, 5 \Rightarrow 2 + 5 = 7 = 7$$

$$3, 6 \Rightarrow 3 + 6 = 9 \neq 7$$

All don't have sum '7' so given die is not showing for die

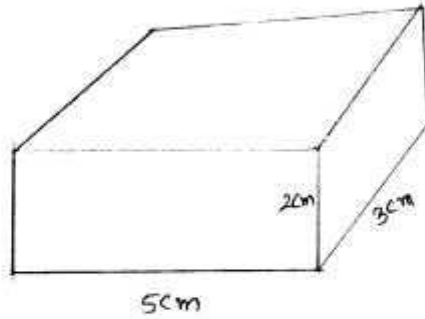
5.



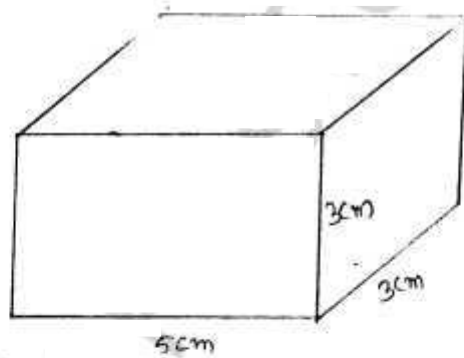
Exercise 15.2

1.

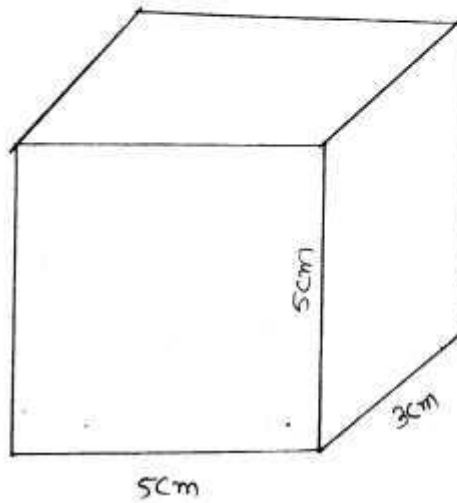
i) Height - 2cm



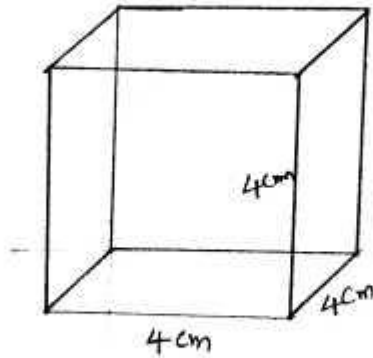
ii) Height 3cm.



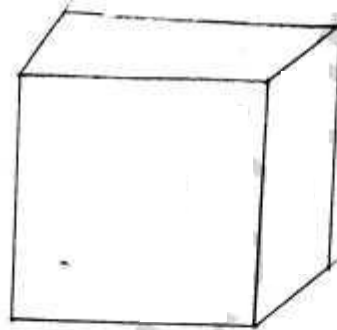
iii) Height 5cm.



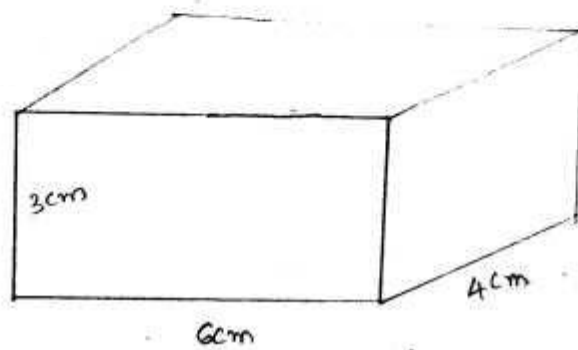
- a) A cube with an edge 4cm long
⇒ oblique sketch



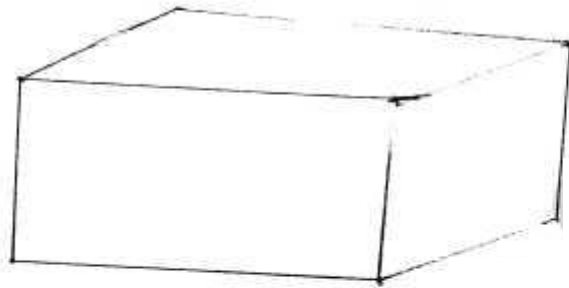
- ii) isometric view.



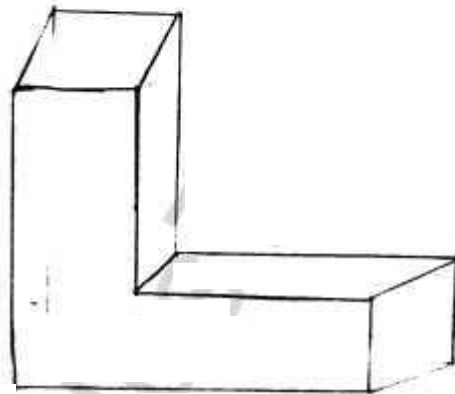
- b) Cuboid with length 6cm, breadth 4cm and height 3cm.
⇒ oblique sketch



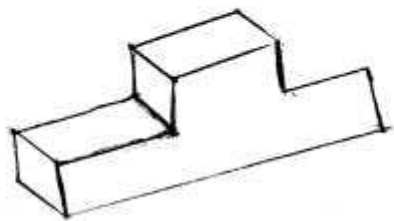
ij) isometric sketch



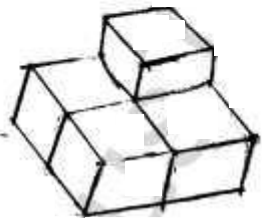
3.



4.
(i)



(ii)



Exercise 15.3

1.

i) 30

ii) 20

iii) 46

2.

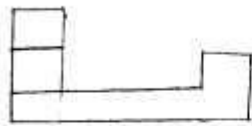
- | | Vertical cut | Horizontal cut |
|---------------------------|--------------|----------------|
| a) A brick → i) | Rectangle | ii) Rectangle |
| b) A round apple → i) | Circle | ii) Circle |
| c) A die → i) | Square | ii) Square |
| d) A circular pipe → i) | Circle | ii) Rectangle |
| e) An ice cream cone → i) | Triangle | ii) Circle |
| f) A square pyramid → i) | Triangle | ii) Square |

3.

- | | (1) | (2) | (3) |
|----|-----------------|-----------------|----------------|
| a) | Side View | Top View | Front View |
| b) | Front (or) top | Side view | Top (or) Front |
| c) | Top View | Side View | Front View |
| d) | Front (or) side | Side (or) Front | Top View |
| e) | Top View | Side View | Front View |

4.

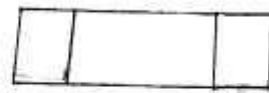
(i)



Front View

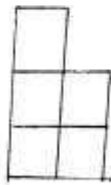


Side View

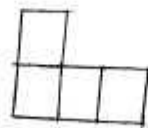


Top View

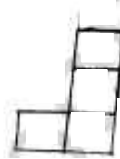
(ii)



Front View



Side View



Top View