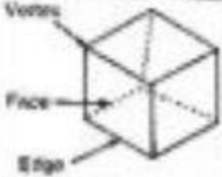


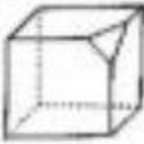


# Exercise 19.1

Q1: Complete the following table and verify Euler's formula in each case.

				
Faces (F)	6	4		
Edges (E)	12			
Vertex (V)	8	4		

A1:

	I	II	III	IV
Faces (F)	6	4	9	7
Edges (E)	12	6	16	15
Vertices (V)	8	4	9	10
Euler's formula ( $F - E + V$ )	$6 - 12 + 8 = 2$	$4 - 6 + 4 = 2$	$9 - 16 + 9 = 2$	$7 - 15 + 10 = 2$

Hence Euler's formula is verified for these figures.

*Q2: Give three examples from our daily life which are in the form of*

*(i) a cone*

*(ii) a sphere*

*(iii) a cuboid*

*(iv) a cylinder*

*(v) a pyramid.*

**A2:**

Examples of

(i) Cone: Ice-cream cone, clown cap, rocket

(ii) Sphere: Football, a round apple, an orange

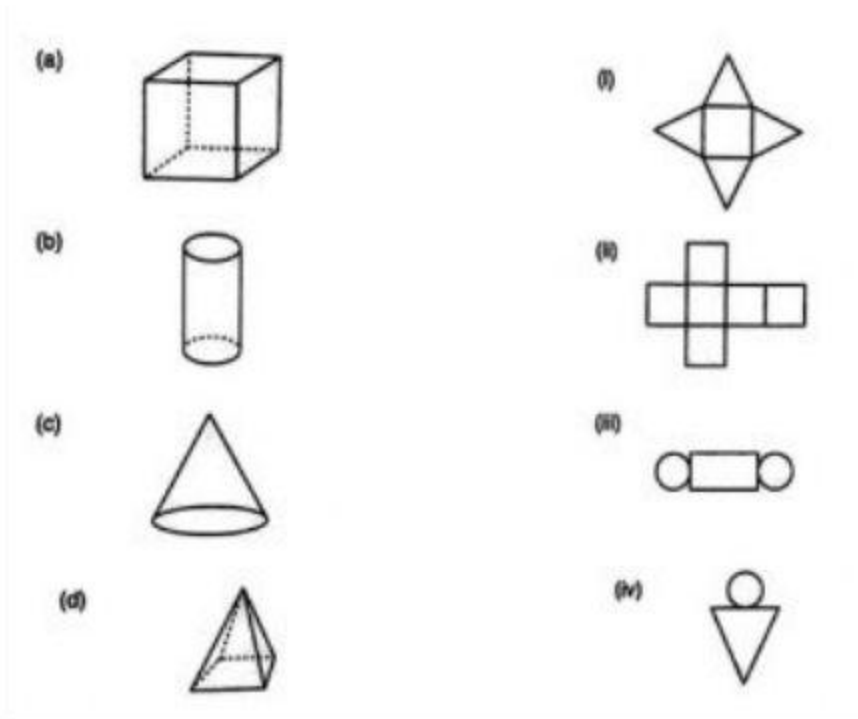
(iii) Cuboid: book, brick, duster

(iv) Cylinder : circular pipe, glass, circular pole

(v) Christmas decorations, cheese and patio umbrellas.

## Exercise 19.2

*Q1: Match the following nets with appropriate solids:*



**A1:** Here,

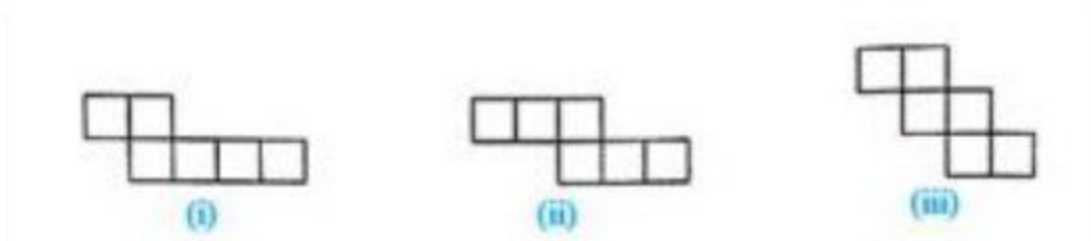
(a) -> (ii)

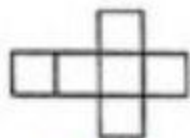
(b) -> (iii)

(c) -> (iv)

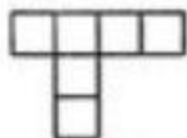
(d) -> (i)

*Q2: Identify the nets which can be used to make cubes (cut-out the nets and try it):*

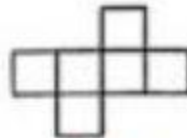




(iv)



(v)

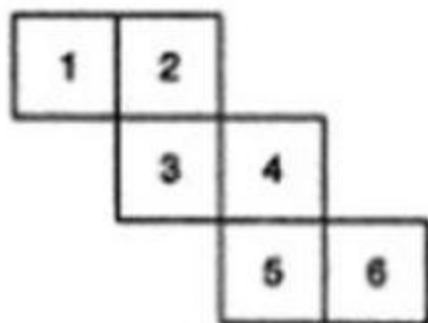


(vi)

A2:

Only (ii), (iv) and (vi) form a cube.

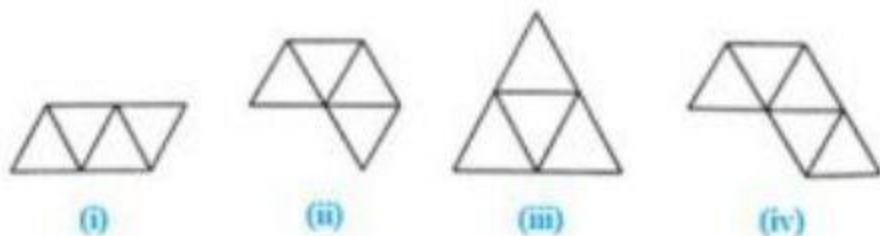
Q3: Can the following be a net for a die? Explain your answer.



A3:

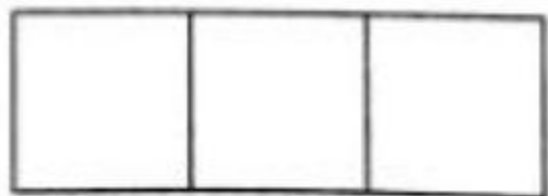
Since, in a die, the sum of the number of opposite faces of a die is 7. In the given figure, it is not possible to get the sum as 7. Hence the given net is not suitable for a die.

Q4: Out of the following four nets there are two correct nets to make a tetrahedron. Identify them.



**A4:** For making a tetrahedron, only (i) and (iii) are suitable nets.

**Q5:** Here is an incomplete net for making a cube. Complete it in at least two different ways.



**A5:**

The complete nets for making a cube are Images

