

## *Exercise 15.4*

### Question 1:

A bulb is kept burning just right above the following solids. Name the shape of the shadows obtained in each case. Attempt to give a rough sketch of the shadow.  
(You may try to experiment first and then answer these questions).



A ball

(i)



A cylindrical pipe




(ii)



A book

(iii)

### Answer 1:

| S.No. | Object             | Shadow  | Shape's name |
|-------|--------------------|---|--------------|
| (i)   | A ball             |  | Circle       |
| (ii)  | A cylindrical pipe |  | Line         |
| (iii) | A book             |  | Rectangle    |

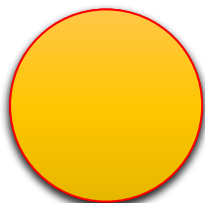
**(Chapter – 15) (Visualising Solid Shapes)**  
**(Class – VII)**

**Question 2:**

Here are the shadows of some 3-D objects, when seen under the lamp of the overhead projector. Identify the solid (s) that match each shadow.

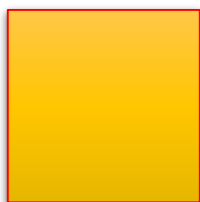
(There may be multiple answers for these!)

A circle



(i)

A square



(ii)

A triangle





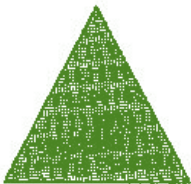
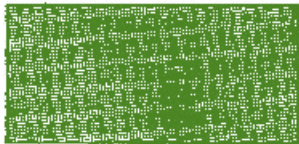
(iii)

A rectangle



(iv)

**Answer 2:**

| S. No. | Shadow  | Shape's Name | 3-D objects  |
|--------|---|--------------|--|
| (i)    |    | Circle       | Chapatti, Football, Disc, Plate etc.                       |
| (ii)   |  | Square       | Die, Square paper sheet, cubical magic box, Chalk box etc. |
| (iii)  |  | Triangle     | Ice-cream cone, Birthday cap, etc.                         |
| (iv)   |  | Rectangle    | Geometry box, Book, Table etc.                             |

*(Chapter – 15) (Visualising Solid Shapes)*  
**(Class – VII)**

**Question 3:**

Examine if the following are true statements:

- (i) The cube can cast a shadow in the shape of a rectangle.
- (ii) The cube can cast a shadow in the shape of a hexagon.

**Answer 3:**

- (i) True
- (ii) False