

MATHEMATICS

Class-7th

Chapter-15

*Visualising
Solid
Shapes*

Exercise-15.4

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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

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.

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

