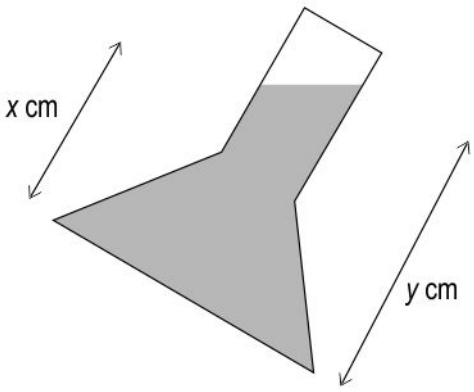
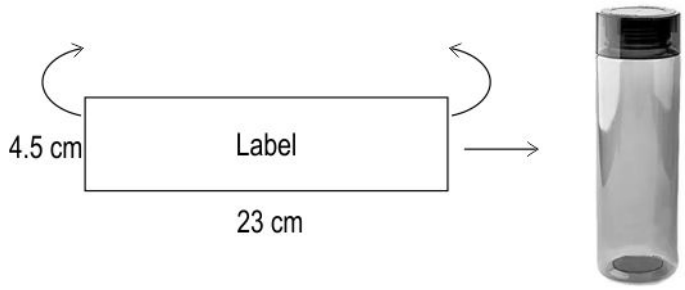
Surface Areas and Volumes

P	3	5
Q	5	7
R	3.5	10

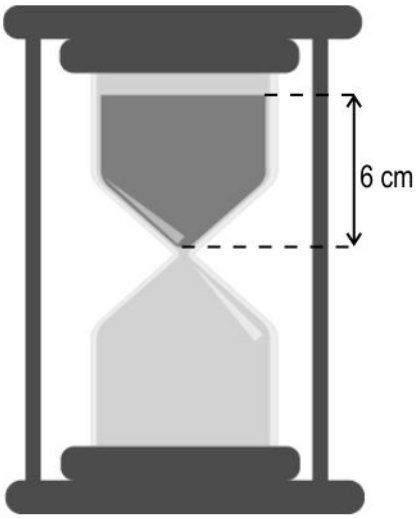
- only P and Q
- only Q and R
- only R and P
- (P, Q and R have different curved surface areas because they have different radii and slant heights)





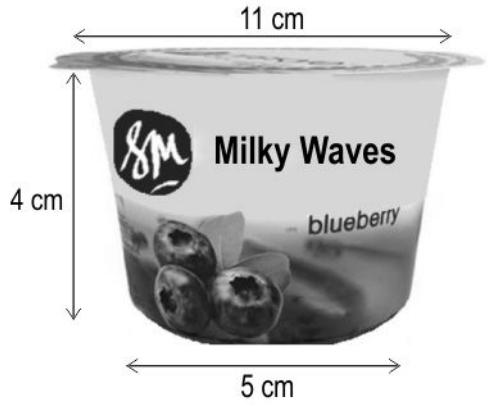
(Note: The figures are not to scale.)

(Note: Take π as — .)

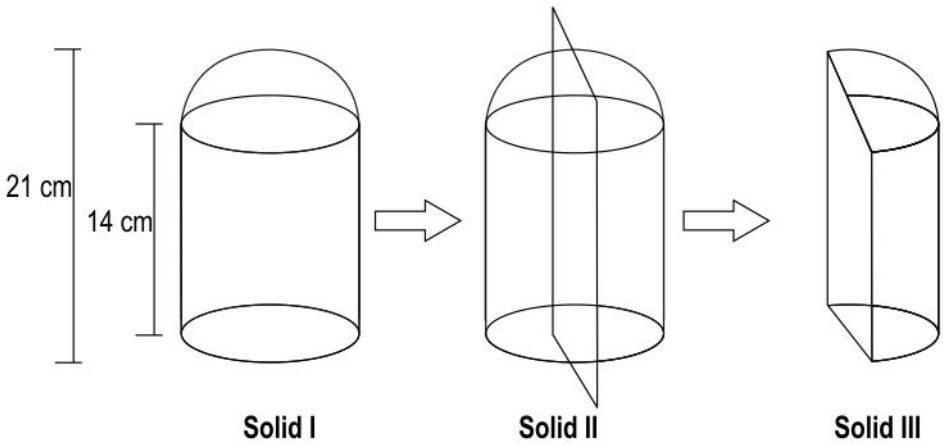


h

h

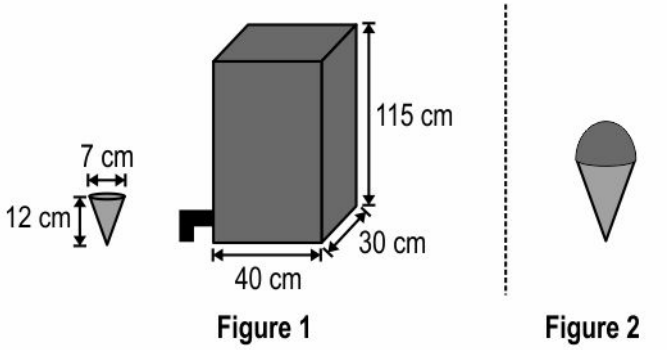


(Note: Assume that each label covers the curved surface area of the cup without any overlap; the figure is not to scale; use π as 3.14.)



(Note: The figures are not to scale.)

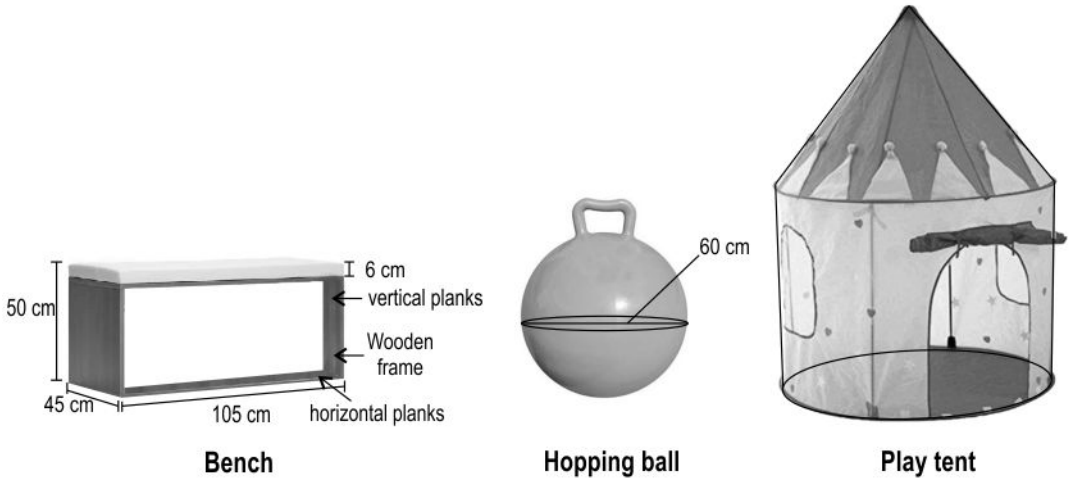
(Note: Take π as — .)



(Note: Take π as — .)

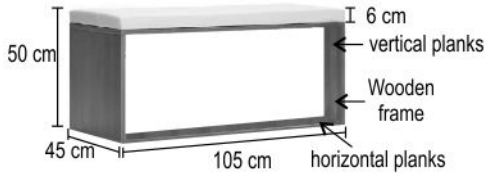
ase tudy

An indoor kids play area has a cuboidal sitting bench, a hopping ball and a play tent as shown in the figure. The hopping ball has a handle attached to a sphere. Air is filled in the spherical part which is locked using a peg. The tent consists of a conical section exactly on top of a cylindrical section.

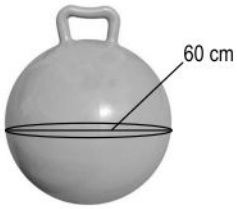


(Note: The figure is not to scale.)

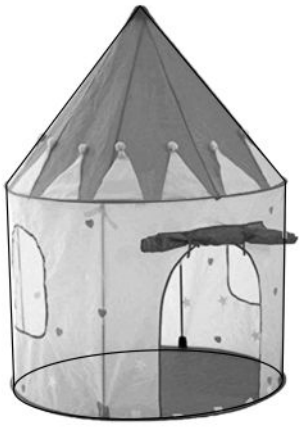
The height of the cylindrical section of the tent is one and a half times the height of the conical section of the tent. The height and the diameter of the conical section of the tent are equal.



Bench



Hopping ball



Play tent

Q.No	Correct Answers
1	2

Q.No	What to look for	Marks
	r $H = -$ r h H h r	
	H –	
	———	
	—	
	r — r	
	–	
	r h	
	h	
	r h – r h + r h	
	h h – h + h h – h	

Q.No	What to look for	Marks
	$\sqrt{4^2 + (5.5 - 2.5)^2} = 5$	

Q.No	What to look for	Marks
	$l \times b \times h$ l b h	
	r r $h =$	
	r	
	h	
	$\frac{1}{3} \times \pi \times \left(\frac{h}{2}\right)^2 \times h$ $= \frac{\pi h^3}{12} \text{cm}^3$	
	h	

Q.No	What to look for	Marks
	– ***h*** — ***h*** – –	