Test: Primary 4 Science (Term 1) - School NH

Points: 19 points

Name: _____ **Score:** _____

Date: _____

Signature: _____

Select multiple choice answers with a cross or tick:

- ○ Only select one answer
- ☐ Can select multiple answers

Question 1 of 15

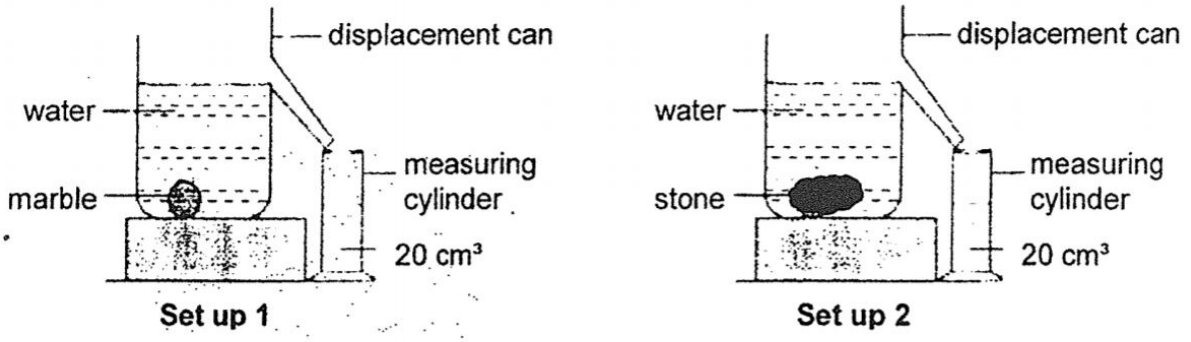
Primary 4 Science (Term 1) 2 pts

MCQ (8 x 2 marks = 16 Marks)

Which one of the following objects is **not** a light source?

- ○ **A)** Sun
- ○ **B)** Table
- ○ **C)** Firefly
- ○ **D)** Lighted candle

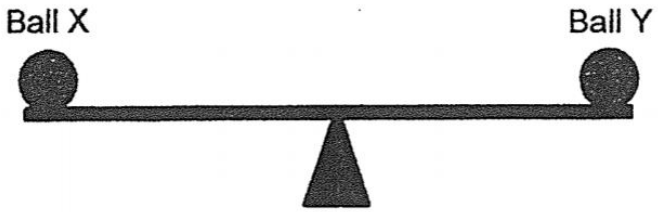
2. A marble and a stone were lowered into two displacement cans as shown in Set-up 1 and Set-up 2 respectively. The displaced water was collected in the measuring cylinders as shown below.



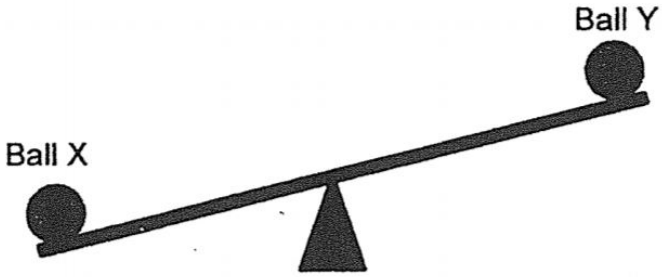
This activity shows that the marble and stone have the _____.

- **A)** same mass
- **B)** same volume
- **C)** same mass and volume
- **D)** same mass but different volume

The diagram below shows two identical balls, X and Y, filled with the same amount of air and placed on a balance.



Another 200 cm^3 of air was pumped into ball X but ball X did not increase in size. Ball X was placed onto the balance again and the balance moved as shown in the diagram below.



What conclusion(s) can be made from the observations shown?

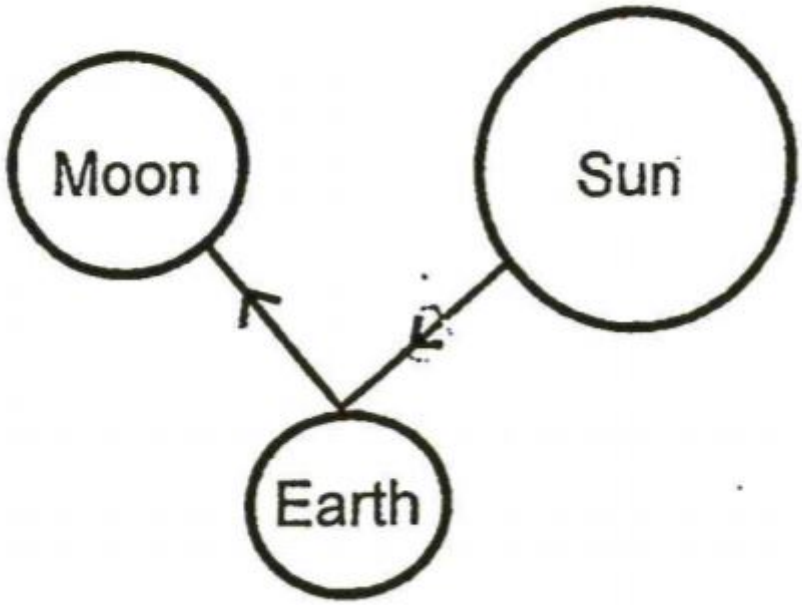
A Air has mass.
B Air can be compressed.
C Air has no definite volume.

- **A)** A and B only
- **B)** A and C only
- **C)** B and C only
- **D)** A, B and C

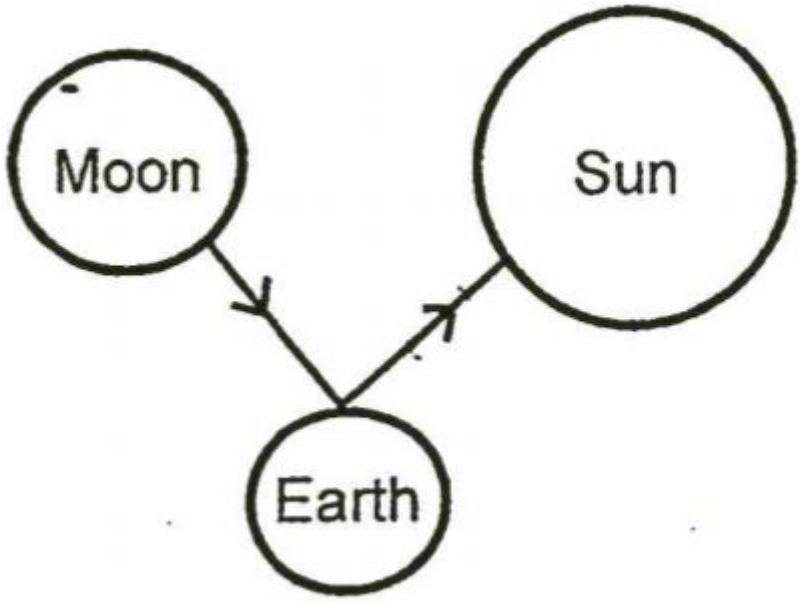
Question 4 of 15 Primary 4 Science (Term 1) 2 pts

Which one of the following diagrams correctly shows how the Moon reflects light so that the people on Earth can see the Moon?

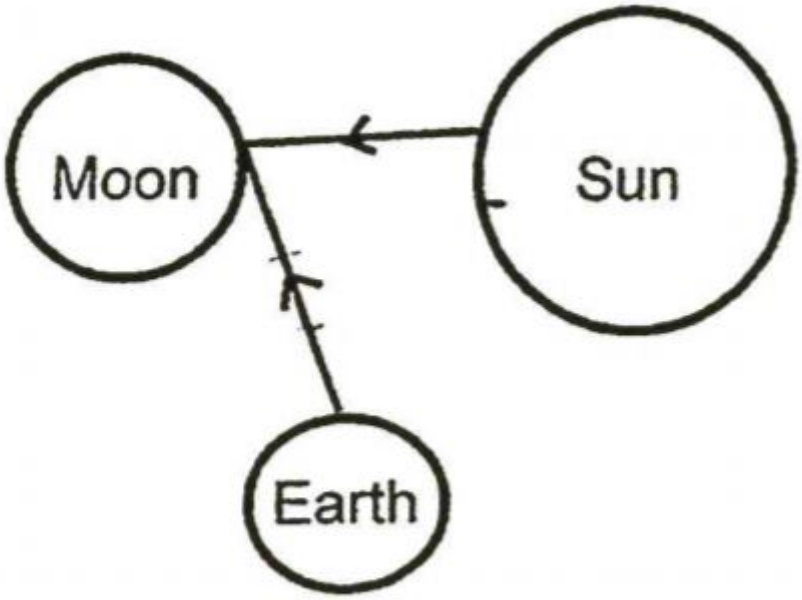
A)



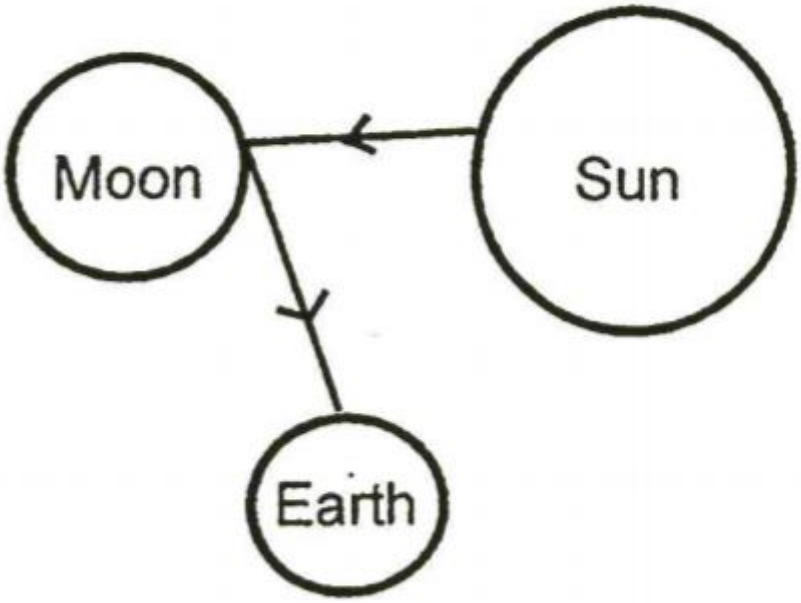
B)



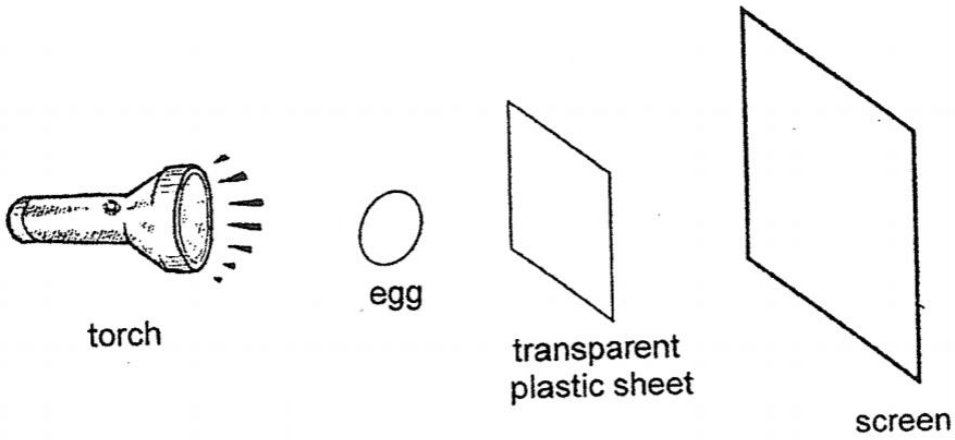
C)



D)

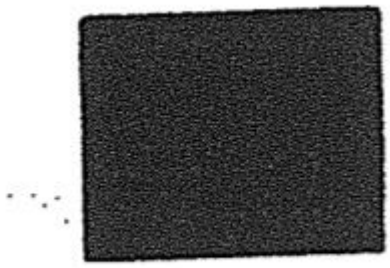


Janelle set up an experiment as shown in the diagram below. A shadow was cast on the screen.

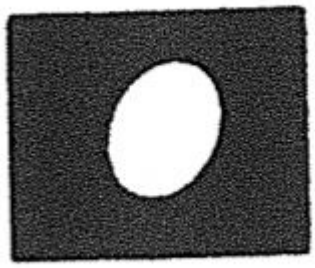


Which one of the following shadows would Janelle see on the screen?

A)

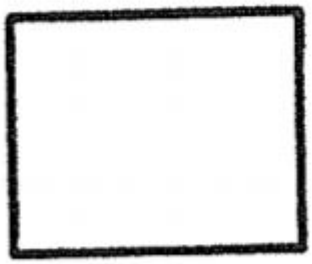


B)



C)

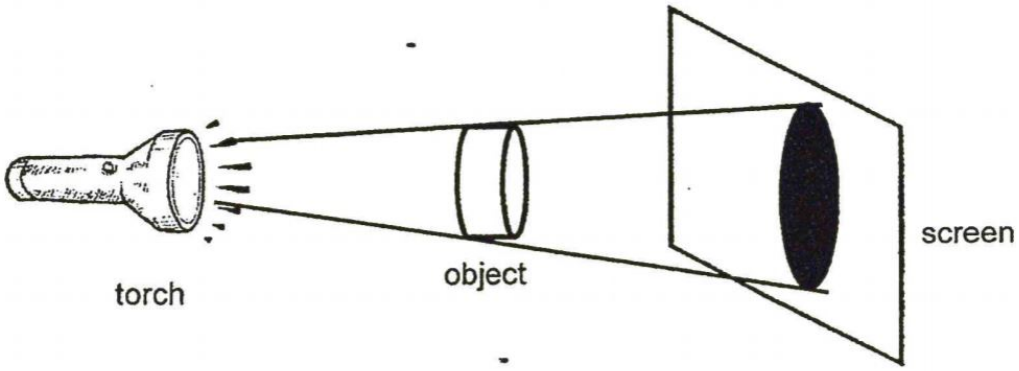
D)



Question 6 of 15

Primary 4 Science (Term 1) 2 pts

Randall set up the experiment below to investigate how the positions of the torch, object and screen would affect the size of the shadow formed.



He observed a shadow of the object formed on the screen. In order to increase the size of the shadow, Randall should _____.

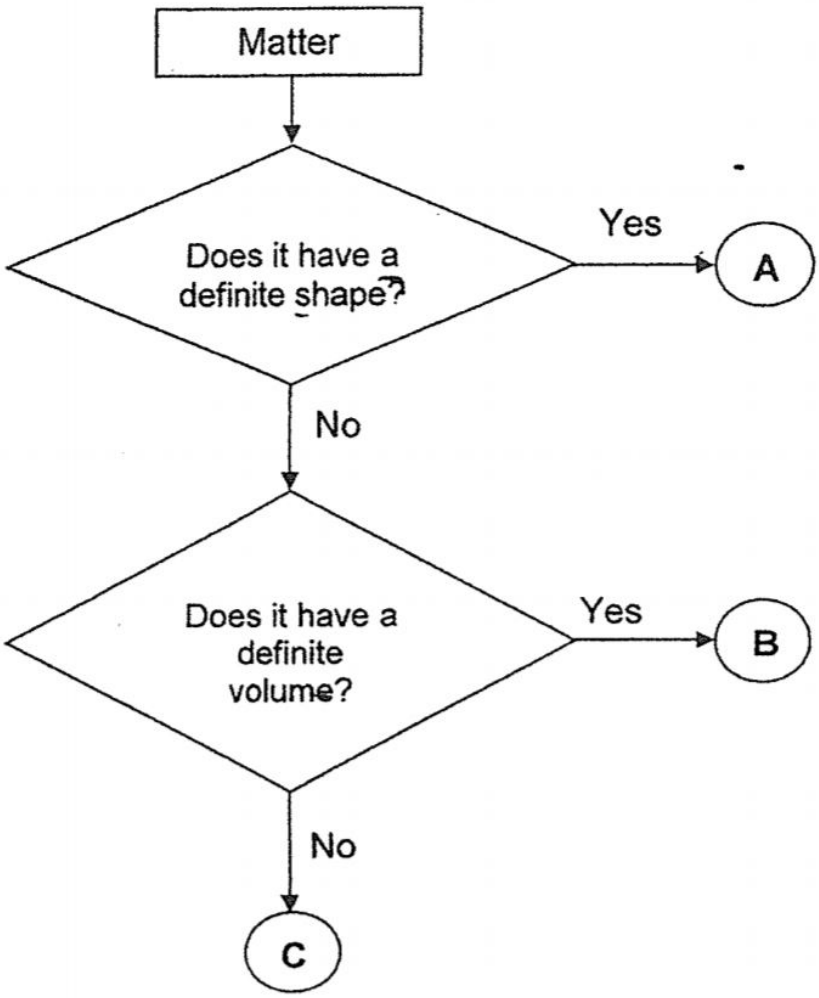
A) use a larger screen

B) move the object closer to the torch

C) move the torch away from the object

D) move the object closer to the screen

The following flow chart is used to classify three matter, A, B and C.



Based on the information given, what could substances A, B and C be?

A)

Substance A	Substance B	Substance C
green beans	oil	pencil

B)

Substance A	Substance B	Substance C
oil	honey	pencil

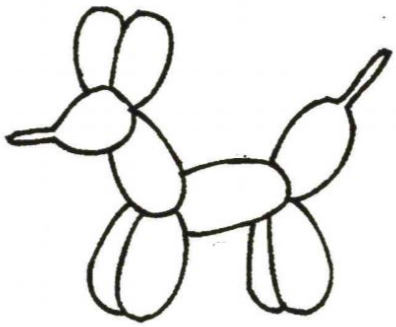
C)

Substance A	Substance B	Substance C
green beans	honey	oxygen

D)

Substance A	Substance B	Substance C
honey	oil	oxygen

During a science lesson, Mrs. Loh filled a long balloon with air and then twisted it so that it looked like a dog as shown below.



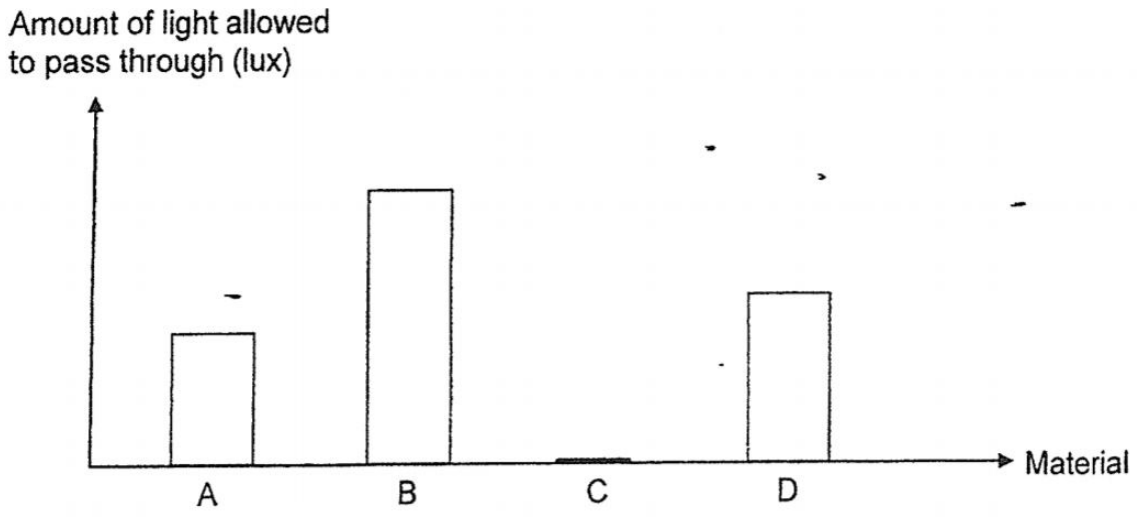
From the above activity, what properties of the air in the balloon is she trying to show to the class?

A No fixed mass
B No fixed shape
C No fixed volume

- **A)** A and B only
- **B)** A and C only
- **C)** B and C only
- **D)** A, B and C

For each question, write your answers in the space provided.
(4 x 2 marks = 8 Marks)

Michelle wanted to find out how much light could pass through four different types of materials, namely A, B, C and D. The amount of light that passed through each material was measured using a light sensor and the findings are shown in the graph below.

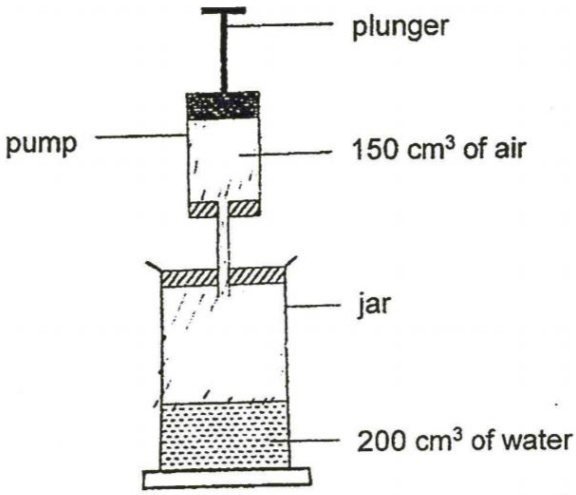


From the graph, which material, A, B, C or D, should Michelle choose to make the display boxes for her bakery? Why?

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

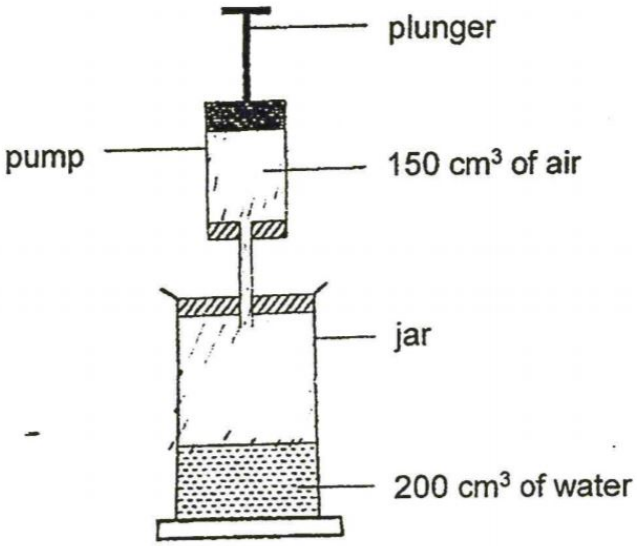
Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.

The diagram below shows a 400 cm^3 jar containing 200 cm^3 of water and a pump containing 150 cm^3 of air. When the plunger is pushed all the way down, the air in the pump goes into the jar.



What is the volume of the air in the jar after the plunger is pushed down completely?

The diagram below shows a 400 cm^3 jar containing 200 cm^3 of water and a pump containing 150 cm^3 of air. When the plunger is pushed all the way down, the air in the pump goes into the jar.



What does this experiment show about the property of the air?

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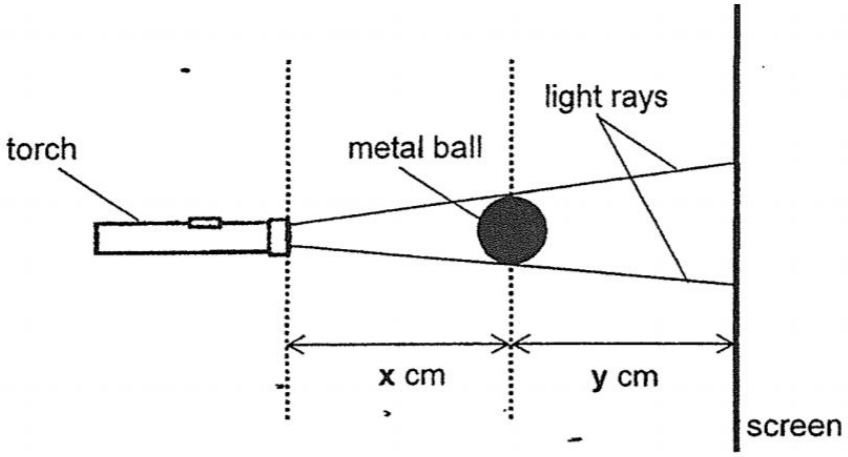
In the experimental set-up below, Adriana placed a metal ball between the torch and the screen. A shadow is formed on the screen as shown. The height of the shadow was recorded in a table.

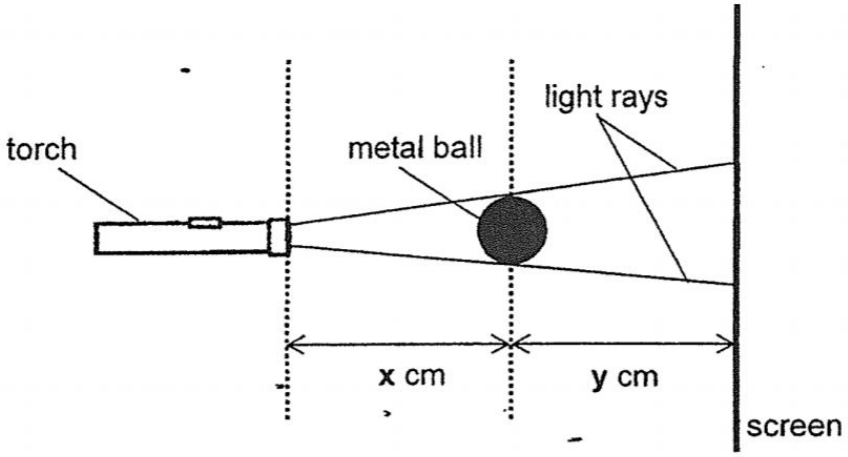


Adriana repeated the experiment a few times by changing the distance of the torch from the metal ball. Then she measured the height of the shadows and recorded them in the table below. The table below shows the height of the shadows at each of the different distances.

Distance of the torch from the metal ball (x) (cm)	Distance between the metal ball and screen (y) (cm)	Height of the shadow (cm)
10	10	15
Q	10	17
R	10	19
S	10	21

Based on the information given in the table above, which letter, Q, R or S, represents the smallest distance between the torch and the metal ball?

In the experimental set-up below, Adriana placed a metal ball between the torch and the screen. A shadow is formed on the screen as shown. The height of the shadow was recorded in a table.



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Distance of the torch from the metal ball (x) (cm)	Distance between the metal ball and screen (y) (cm)	Height of the shadow (cm)
10	10	15
Q	10	17
R	10	19
S	10	21

Give a reason for your answer in the question before.

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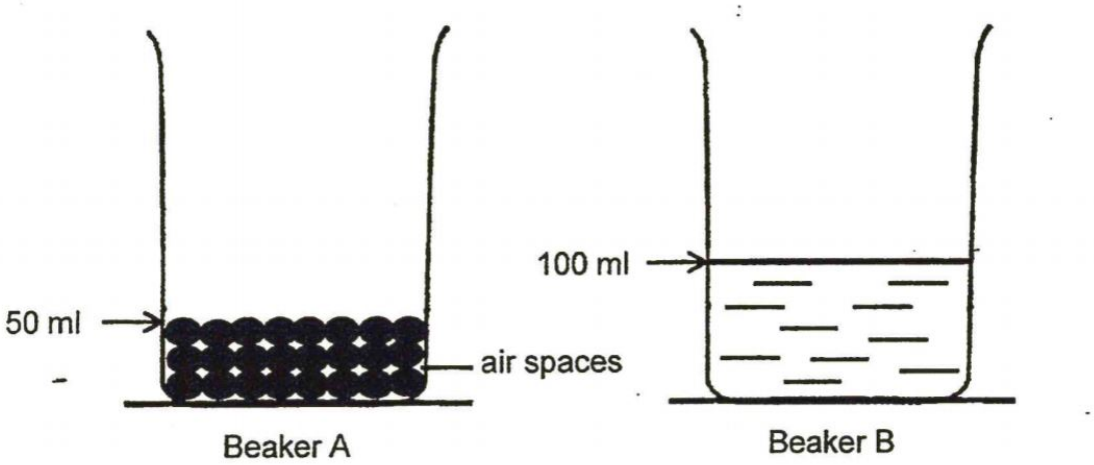
Two beakers, A and B, were placed on the table as shown below. Beaker A was filled with pebbles to the 50 ml mark. Beaker B was filled with water to the 100 ml mark.

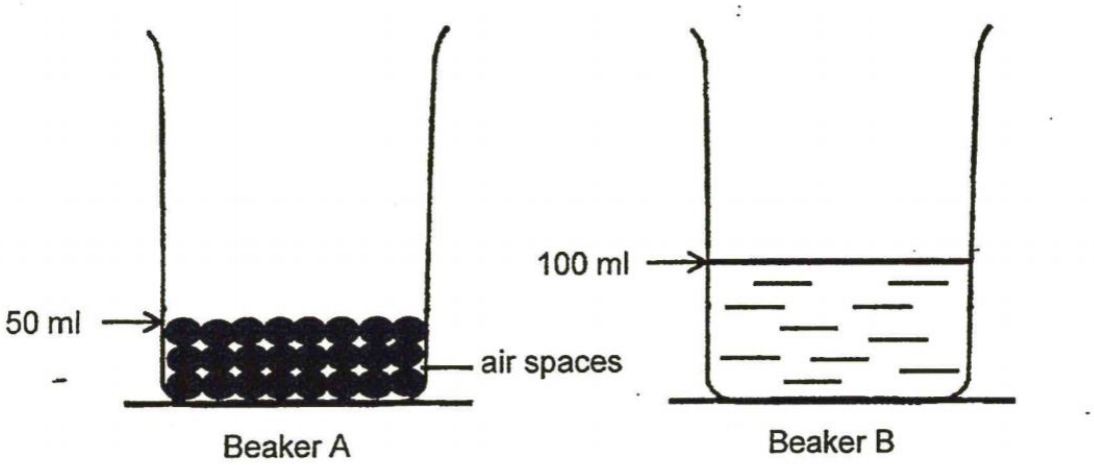


All the water in Beaker B was then poured into Beaker A. What will be the new volume of the contents in Beaker A now?

Choose the correct answer that represents the new volume.

- **A)** Less than 150 cm^3
- **B)** More than 150 cm^3
- **C)** 150 cm^3

Two beakers, A and B, were placed on the table as shown below. Beaker A was filled with pebbles to the 50 ml mark. Beaker B was filled with water to the 100 ml mark.



Explain your answer in the question before.

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