

Test: Primary 5 Science (Term 4) - MGS

Points: 67 points

Name: _____

Score: _____

Date: _____

Signature: _____

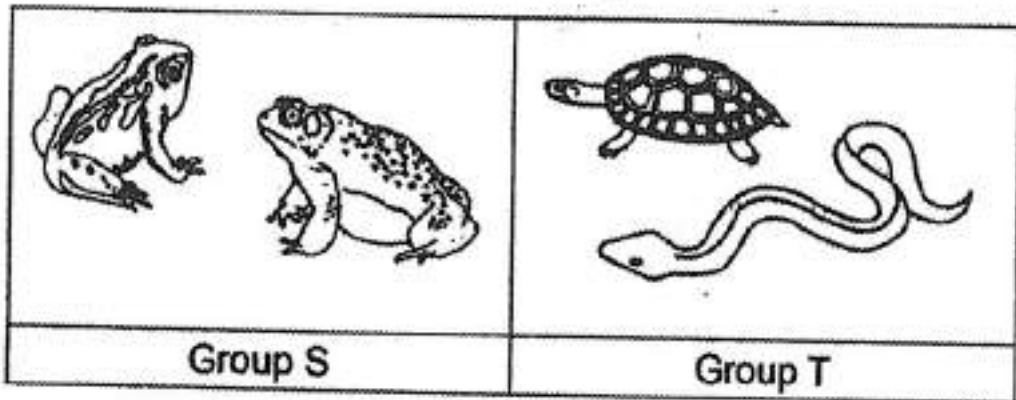
Select multiple choice answers with a cross or tick:

Only select one answer

Can select multiple answers

For each question, four options are given. One of them is the correct answer. (28 marks)

Study the two groups of organisms, S and T below.



Which one of the following correctly describes animal group S or T?

- A)

Group	Covered with scales	Give birth to live young
S	Yes	Yes
- B)

Group	Covered with scales	Give birth to live young
S	No	No
- C)

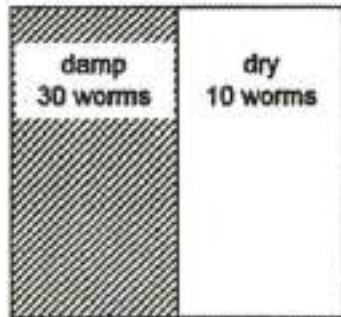
Group	Covered with scales	Give birth to live young
T	No	Yes
- D)

Group	Covered with scales	Give birth to live young
T	Yes	Yes

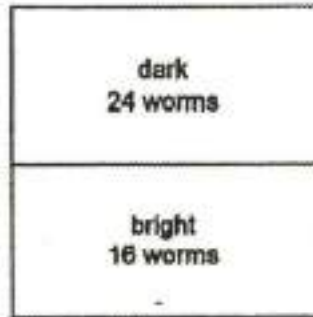
Which one of the following organisms is not a fungus?

- A) moss
- B) yeast
- C) mould
- D) mushroom

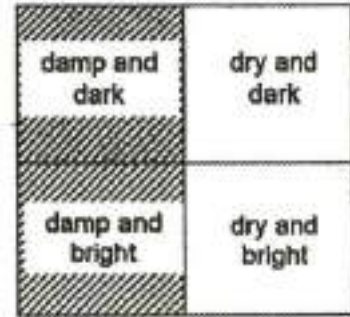
Ruhi carried out an experiment to find out how the worms respond to changes in the environment. 40 worms were placed in the middle of Container X. After ten minutes, the number of worms in each section of Container X was counted. The experiment was repeated with Container Y using the same number of worms and the results of the experiment were shown below.



Container X



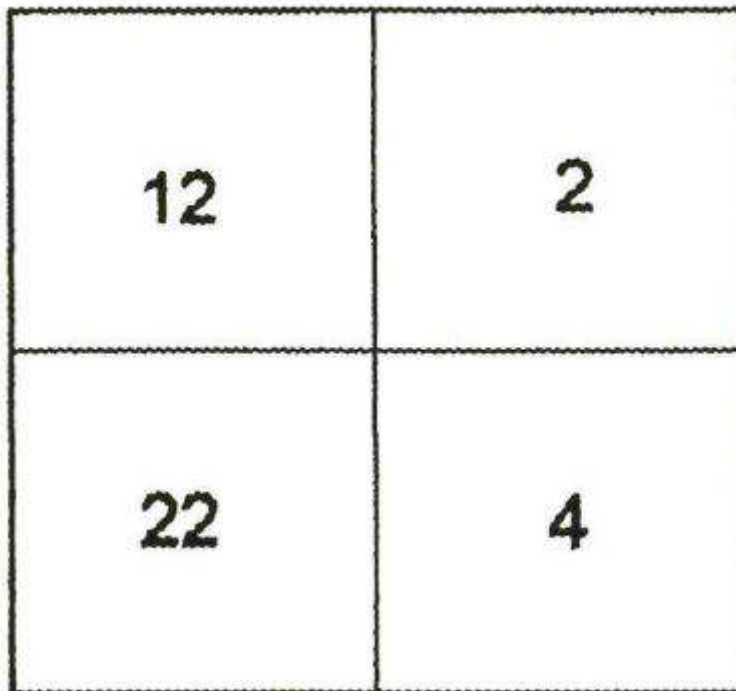
Container Y



Container Z

Based on the results from Container X and Y, which one of the following shows the likely number of worms found in each section of Container Z?

A)



B)

22	2
12	4

C)

18	8
12	2

D)

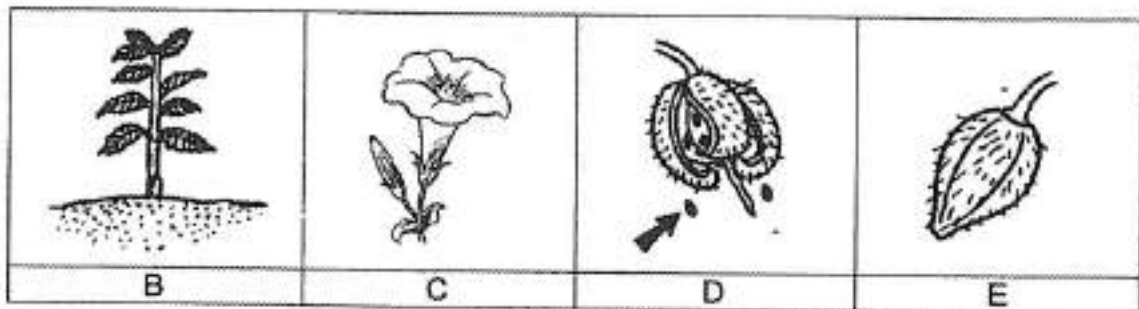
18	2
12	8

Question 4 of 61

Primary 5 Science (Term 4)

2 pts

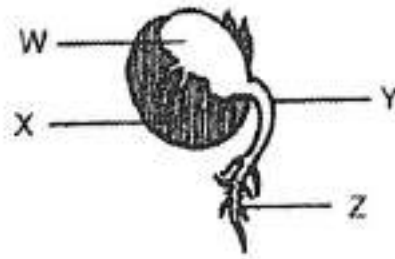
The diagrams below show the stages of development of a flowering plant.



Which one of the following shows the stages in the correct order?

- A) B, E, D, C
- B) C, E, D, B
- C) D, E, C, B
- D) E, C, D, B

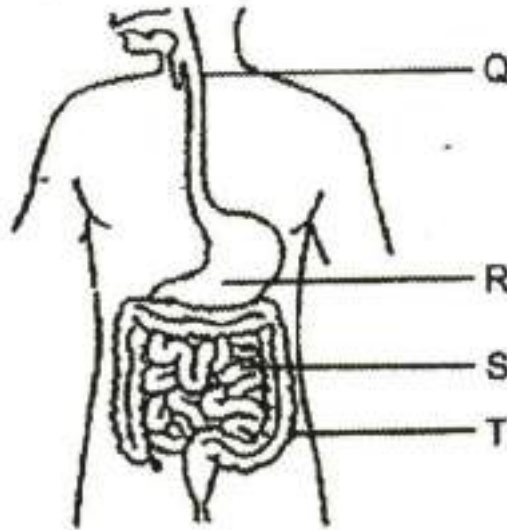
The diagram below shows a seedling.



Which part, W, X, Y or Z, provides food for the seedling before the leaves are developed?

-
- A) W
 - B) X
 - C) Y
 - D) Z

The diagram below shows part of a human digestive system.



Which one of the following shows the correct function of the organs?

- A)

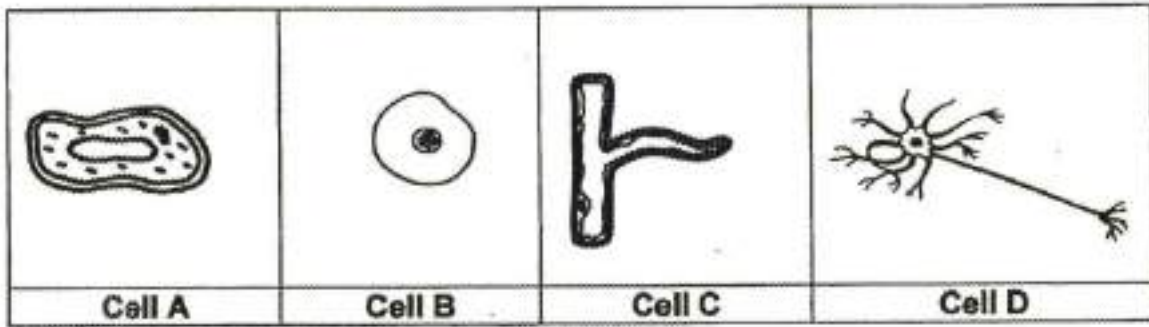
Absorption of water	Absorption of digested food
Q	R
- B)

Absorption of water	Absorption of digested food
R	Q
- C)

Absorption of water	Absorption of digested food
S	T
- D)

Absorption of water	Absorption of digested food
T	S

Four different types of cells are shown below.



Which one of the following classifies the cells correctly?

- A)

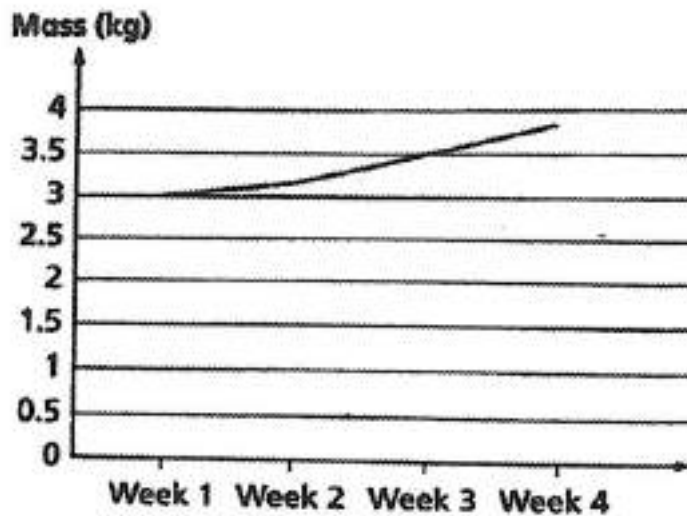
Plant Cells	Animal Cells
A	B, C and D
- B)

Plant Cells	Animal Cells
A and B	C and D
- C)

Plant Cells	Animal Cells
A and C	B and D
- D)

Plant Cells	Animal Cells
A, C and D	B

The graph below shows the mass of a baby over four weeks.



Based on the graph, some pupils made the following statements.

Raj: The baby's mass increased because there are many types of cells.

Ben: The baby's mass increased because the size of the cells increased.

Zul: The baby's mass increased because the number of cells increased.

Whose statement(s) is/are correct?

-
- A) Ben only
- B) Zul only
- C) Raj and Zul only
- D) Raj and Ben only

Meiling made some statements about sexual reproduction in humans and plants.

- X Reproductive cells are found in the ovary.
- Y Reproductive cells are found in the testes.
- Z Fertilisation occurs in a female reproductive part.

Which of the following is correct?

- A)

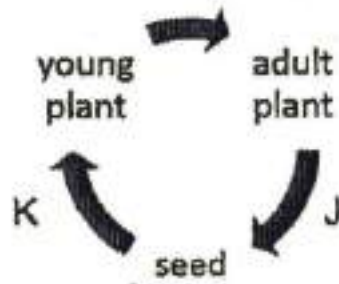
Humans	Plants
Y	X, Z
- B)

Humans	Plants
X, Y	Z
- C)

Humans	Plants
X, Y, Z	X, Z
- D)

Humans	Plants
X, Y, Z	Y

The diagram below shows the life cycle of a flowering plant.



Which one of the following correctly states the process(es) involved at J and K?

- A)

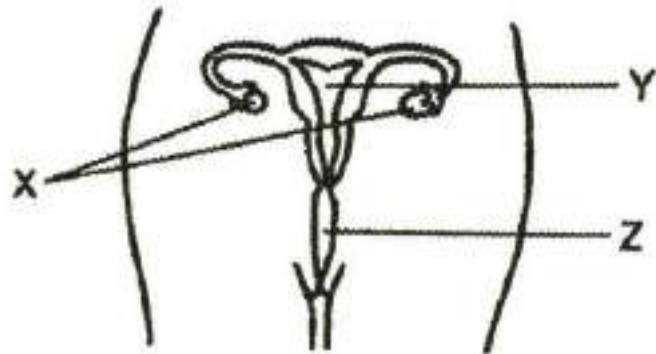
Process(es) at J	Process(es) at K
pollination	fertilisation
- B)

Process(es) at J	Process(es) at K
pollination and fertilisation	dispersal and germination
- C)

Process(es) at J	Process(es) at K
fertilisation and dispersal	pollination and germination
- D)

Process(es) at J	Process(es) at K
dispersal and germination	pollination and fertilisation

The diagram below shows a female reproductive system.



Which of the following statement(s) is/are false?

- P The fertilised eggs are found in X.
- Q The baby develops in part Y.
- R The baby develops in part Z.

- A) Q only
- B) R only
- C) P and Q only
- D) P and R only

Question 12 of 61

A hamster was placed in a sealed glass tank. What would happen to the various gases in the tank after half an hour?

- A)

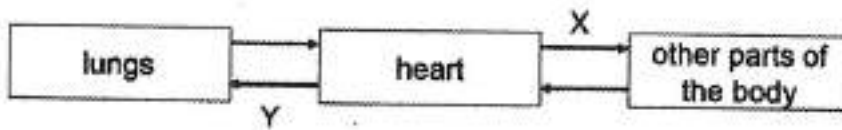
carbon dioxide	oxygen	water vapour
decrease	increase	increase
- B)

carbon dioxide	oxygen	water vapour
increase	decrease	decrease
- C)

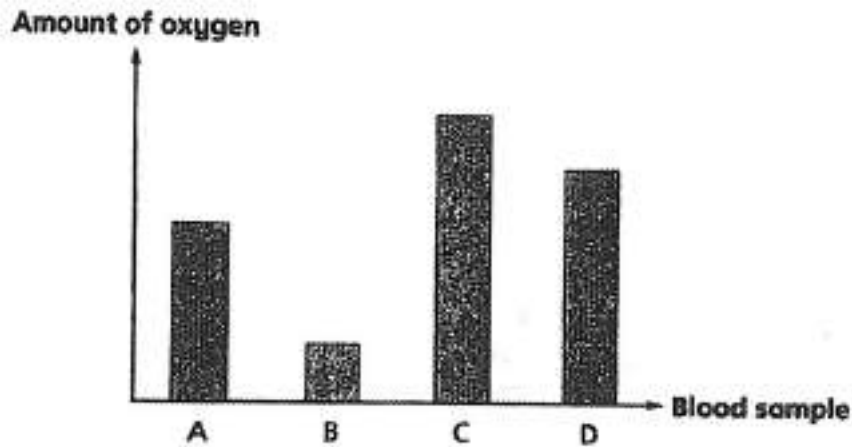
carbon dioxide	oxygen	water vapour
increase	decrease	increase
- D)

carbon dioxide	oxygen	water vapour
decrease	increase	decrease

The diagram below shows the circulatory system of a human. The arrows represent the flow of blood between the different parts of the circulatory system.



The bar chart below shows the amount of oxygen in four blood samples taken from different blood vessels in the circulatory system.



Which blood sample A, B, C or D is likely to be taken from blood vessels X and Y?

- A)

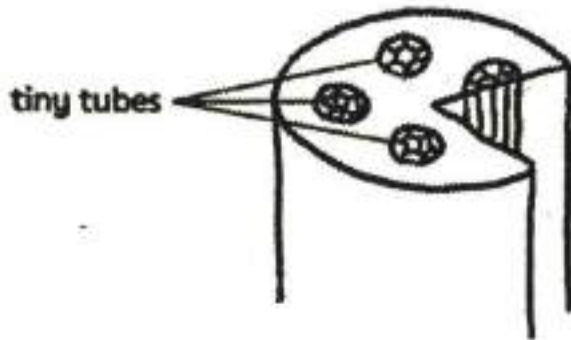
Blood Vessel X	Blood Vessel Y
A	D
- B)

Blood Vessel X	Blood Vessel Y
B	A
- C)

Blood Vessel X	Blood Vessel Y
C	B
- D)

Blood Vessel X	Blood Vessel Y
D	C

The diagram below shows the cross-section of a stem.

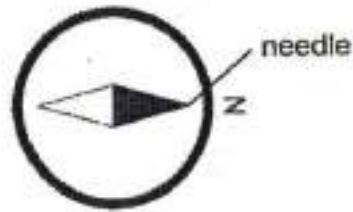


Which of the following statement(s) is/are correct?

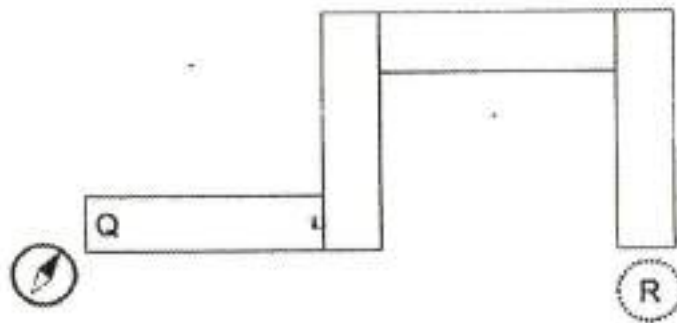
- E Some of the tiny tubes absorb water for the plant.
- F All the tiny tubes help to hold the plant upright.
- G Some of the tiny tubes transport food from the leaves to all parts of the plant.
- H The tiny tubes exchange gases between the plant and the surroundings.

-
- A) E only
 - B) G only
 - C) E and F only
 - D) F and H only

The picture below shows a compass.



Four bar magnets were arranged such that they were attracted to one another. A compass was then placed near Q and the direction of the compass needle is as shown below.



Which one of the following would be the direction of the needle when the compass was placed at R?

A)



B)



C)



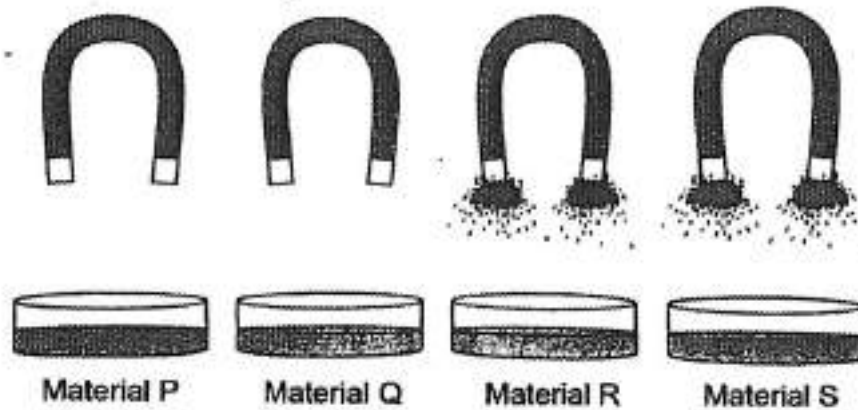
D)



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Primary 5 Science (Term 4) 2 pts

Four identical magnets were dipped into four different materials, P, Q, R and S. The results are shown below.



Based on the results, which one of the following correctly shows the material that could be separated from the mixture of materials indicated in the table?

- A)

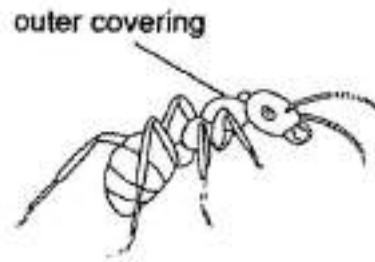
Material that could be separated	Mixture of materials
P	P, Q, R
- B)

Material that could be separated	Mixture of materials
Q	Q, P, S
- C)

Material that could be separated	Mixture of materials
R	R, P, Q
- D)

Material that could be separated	Mixture of materials
S	S, R, Q

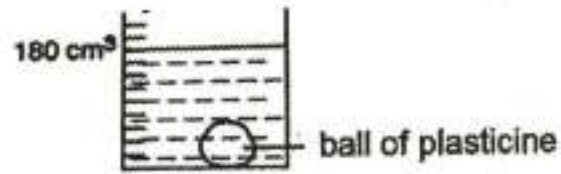
The insect below has an outer covering that supports its body and protects its organs.



Which one of the following properties allows the outer covering to perform the functions described?

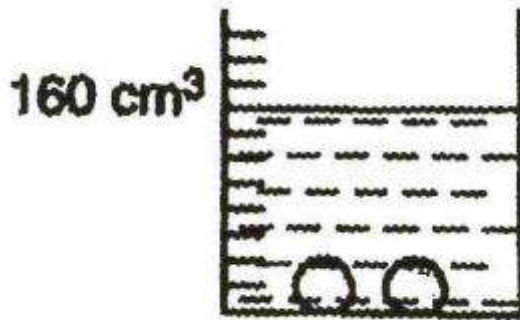
-
- A) strength
 - B) flexibility
 - C) absorbency
 - D) ability to float

Zulfri placed a ball of plasticine into a container of water. He observed that the water level rose to the 180 cm^3 mark as shown below.

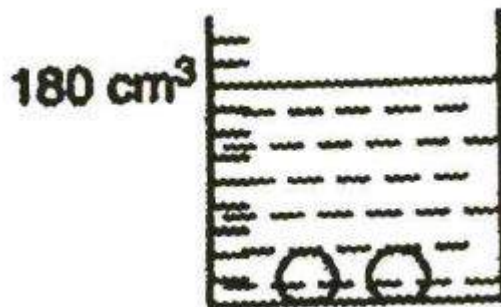


He then took the ball of plasticine out of the water, cut it into two pieces and carefully lowered them into the water again. Which one of the following diagrams shows the correct water level in the container?

A)



B)

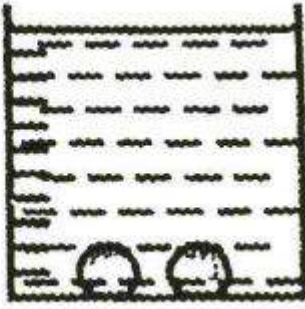


C)



D)

220 cm³

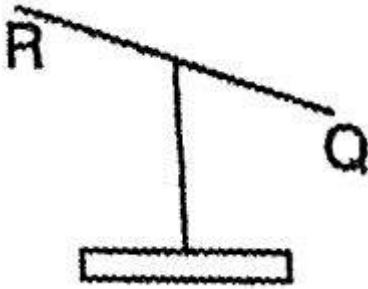


The table below shows the masses of object P, Q and R.

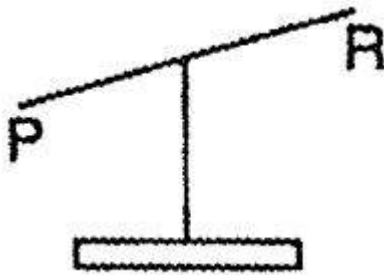
Object	P	Q	R
Mass (g)	65	145	250

Which one of the following diagrams shows the relationship between two of the objects?

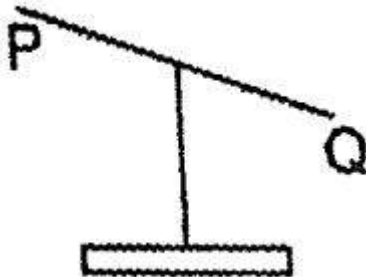
A)



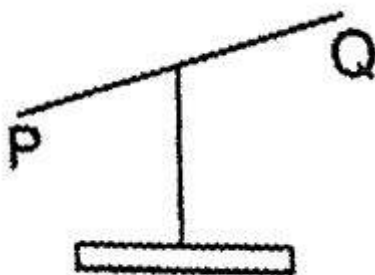
B)



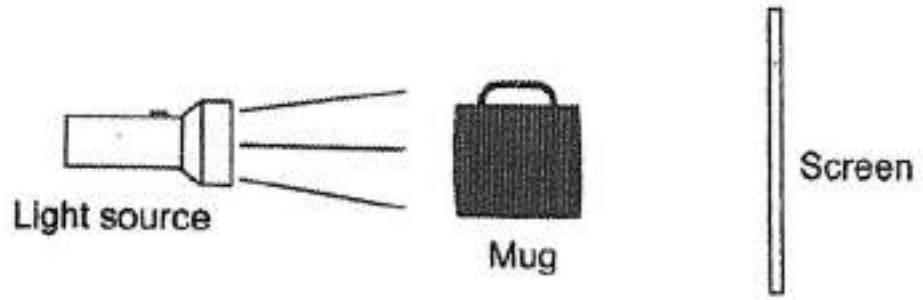
C)



D)



Sam set up the experiment as shown below.



Which one of the following is the shadow formed on the screen?

A)



B)



C)



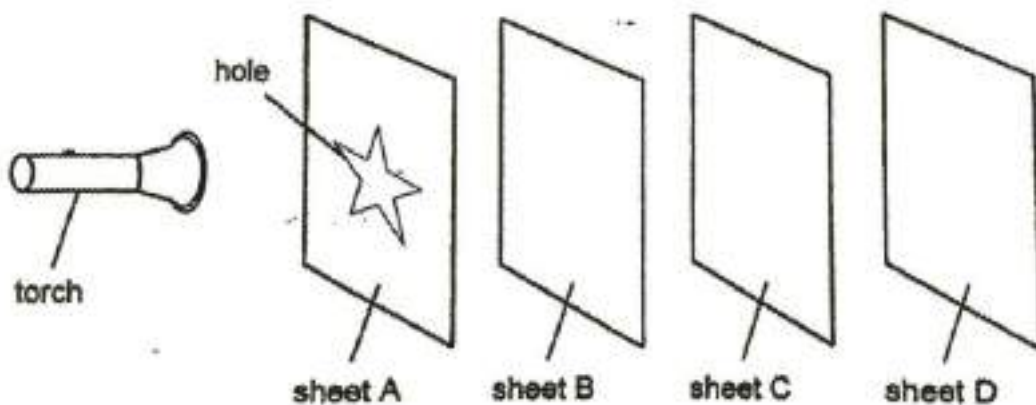
D)



Question 21 of 61

Primary 5 Science (Term 4) 2 pts

The experiment below was carried out in a dark room.



Sheets A to D were arranged in a straight line. When the torch was switched on, a bright star patch of light was seen on sheet C only.

Which one of the following correctly describes the properties of the materials that sheets A, B, C and D are made of?

- A)
- | | | |
|--------------------------------------|------------------------------|----------------------|
| Does not allow light to pass through | Allows light to pass through | Not possible to tell |
| A and C | B | D |
- B)
- | | | |
|--------------------------------------|------------------------------|----------------------|
| Does not allow light to pass through | Allows light to pass through | Not possible to tell |
| C | B | A and D |
- C)
- | | | |
|--------------------------------------|------------------------------|----------------------|
| Does not allow light to pass through | Allows light to pass through | Not possible to tell |
| C | A and D | B |
- D)
- | | | |
|--------------------------------------|------------------------------|----------------------|
| Does not allow light to pass through | Allows light to pass through | Not possible to tell |
| D | A and B | C |

The table below shows the freezing points of three substances X, Y and Z.

Substance	Freezing point (°C)
X	10
Y	50
Z	125

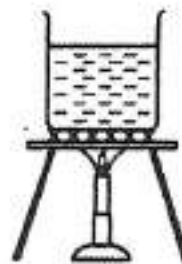
Based only on the information given, which one of the following is correct?

-
- A) X is a solid at 7°C.
 - B) X and Y are both liquids at 45°C.
 - C) Y and Z are both solids at 140°C.
 - D) Z can be a liquid or a gas at 125°C.

The diagrams below show two beakers, A and B, containing different amounts of water at room temperature. Both beakers of water are heated until boiling point.



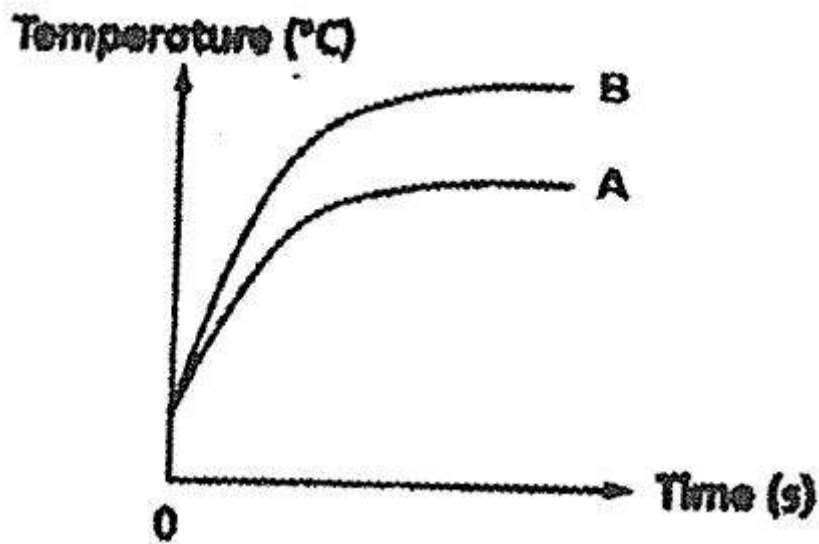
Beaker A



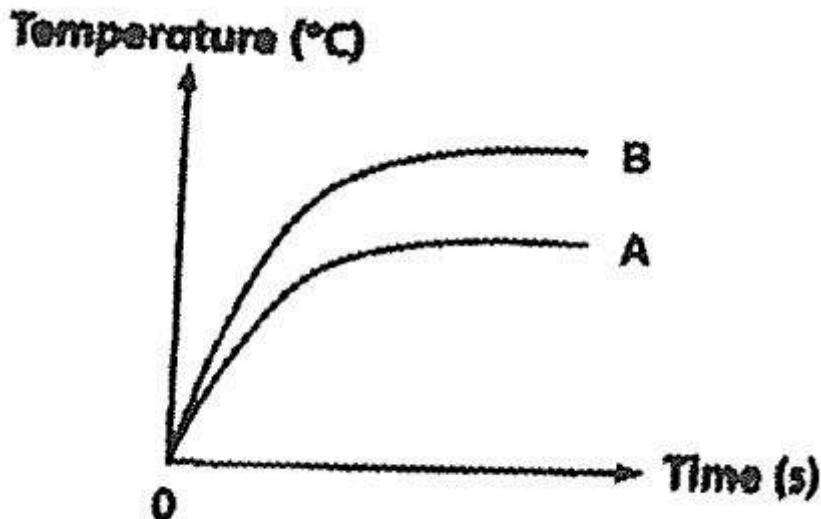
Beaker B

Which one of the following graphs shows the temperature of the water in the two beakers over time?

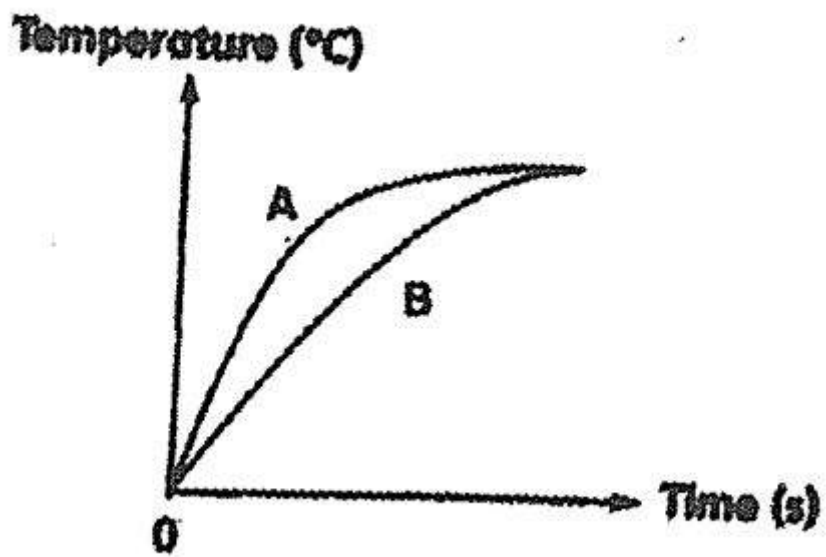
A)



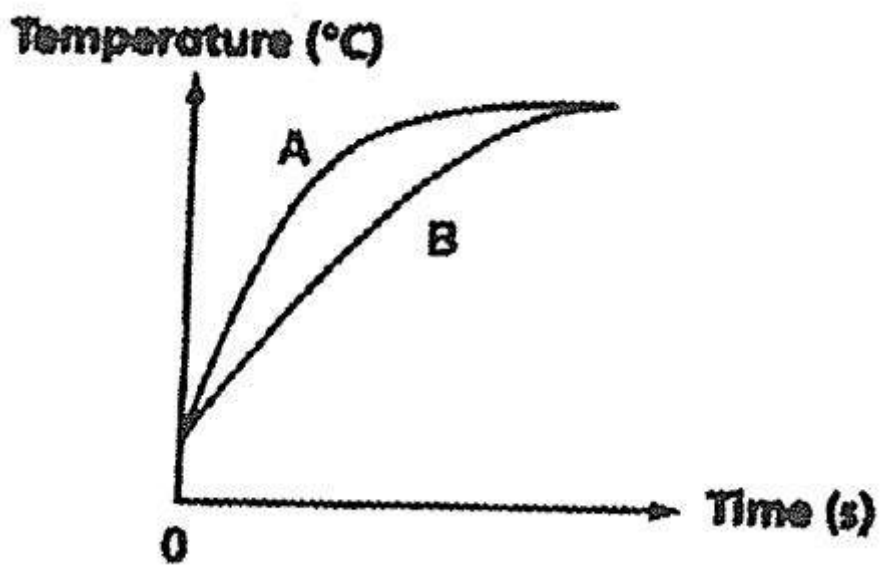
B)



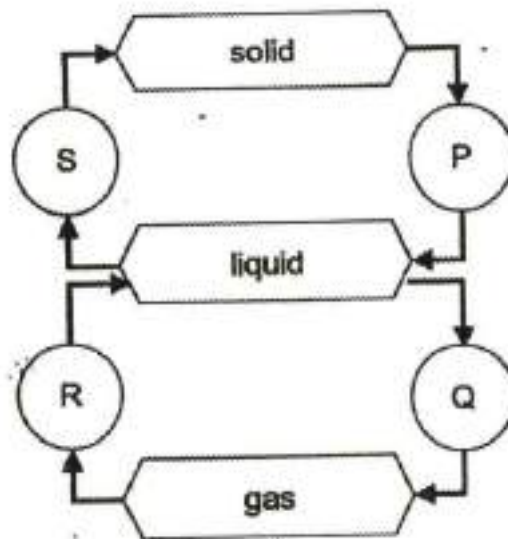
C)



D)



The diagram below shows the changes of state of water.



If P represents melting, which of the following correctly describe processes Q, R and S?

- A)

Q	R	S
evaporating	condensing	freezing
- B)

Q	R	S
evaporating	freezing	condensation
- C)

Q	R	S
condensing	evaporating	freezing
- D)

Q	R	S
freezing	evaporating	condensing

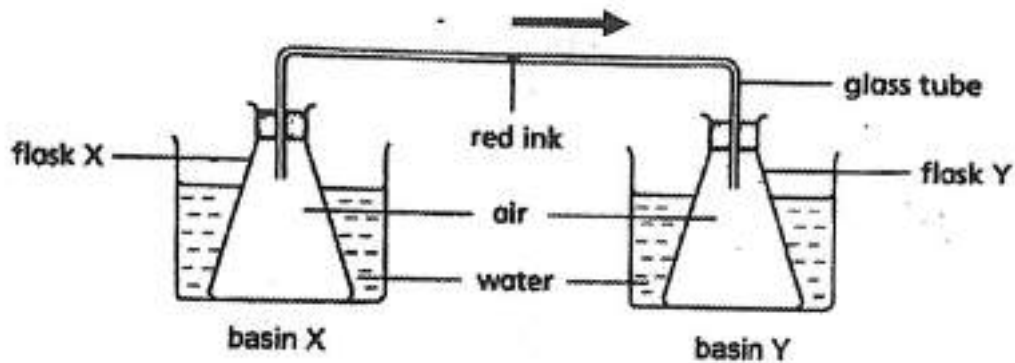
Rina wanted to find out how the exposed surface area of a container affects the rate of evaporation of water.

Set-up	Volume of water in container (ml)	Temperature (°C)	Wind	Exposed surface area of container (cm ²)
J	280	31	absent	200
K	350	25	absent	90
L	280	31	absent	90
M	350	25	present	200

Which two set-ups should Rina use for her investigation?

-
- A) J and K
- B) J and L
- C) K and M
- D) L and M

Two identical flasks were placed into two basins, X and Y, containing water of different temperatures as shown below. After a while, the red ink moved towards flask Y.



Which one of the following shows the temperature of water in the two basins?

- A)

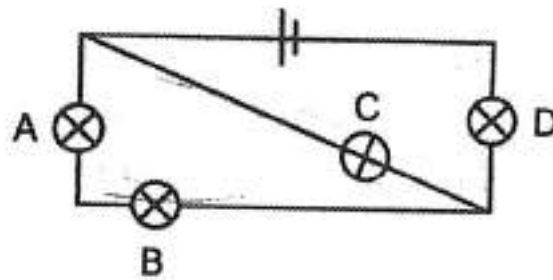
Temperature of water in basin X ($^{\circ}\text{C}$)	Temperature of water in basin Y ($^{\circ}\text{C}$)
25	75
- B)

Temperature of water in basin X ($^{\circ}\text{C}$)	Temperature of water in basin Y ($^{\circ}\text{C}$)
40	90
- C)

Temperature of water in basin X ($^{\circ}\text{C}$)	Temperature of water in basin Y ($^{\circ}\text{C}$)
75	25
- D)

Temperature of water in basin X ($^{\circ}\text{C}$)	Temperature of water in basin Y ($^{\circ}\text{C}$)
80	80

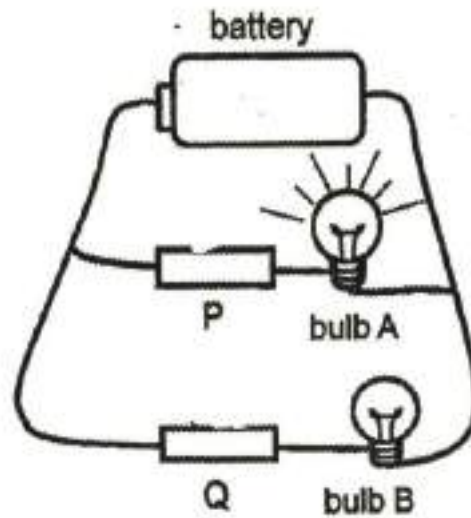
Study the circuit below.



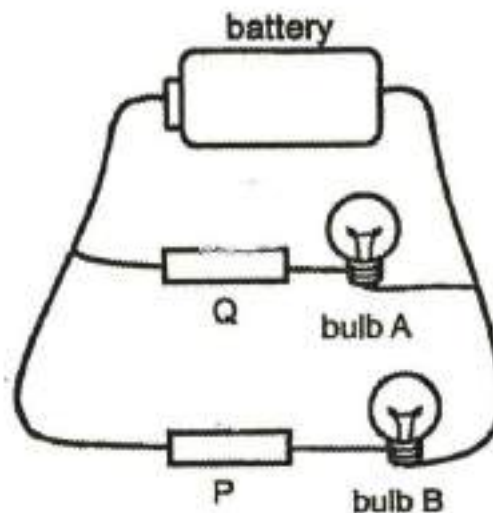
When one of the bulbs had blown, all the other bulbs did not light up. Which one of the bulbs had blown?

- A) A
- B) B
- C) C
- D) D

Shu Ning set up a circuit as shown below. She observed that only bulb A lit up.



She then swapped P and Q and observed that none of the bulbs lit up.



Which one of the following is correct?

- A)

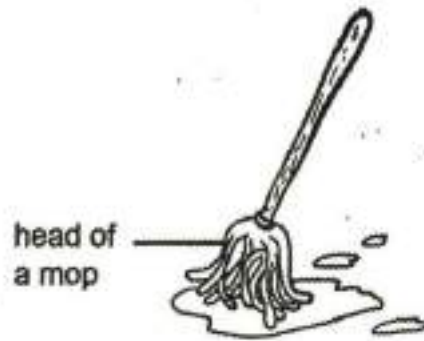
Bulb not working	Electrical insulator
A	P
- B)

Bulb not working	Electrical insulator
B	P
- C)

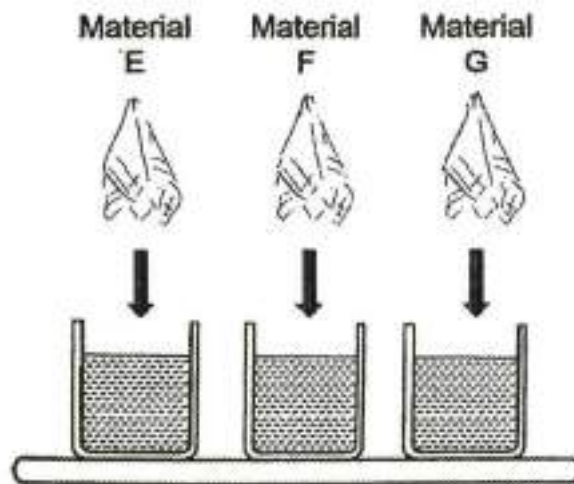
Bulb not working	Electrical insulator
A	Q
- D)

Bulb not working	Electrical insulator
B	Q

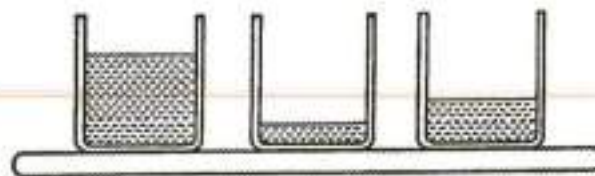
Zacchary wanted to choose a material to make the head of a mop as shown below.



He conducted an experiment with 3 pieces of material, E, F and G of the same size. He dipped each piece of material into the same amount of water for 5 minutes as shown below.

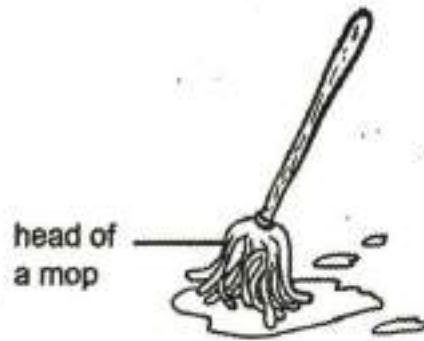


After 5 minutes, he removed the materials and observed the amount of water left in the beakers. The results are shown below.

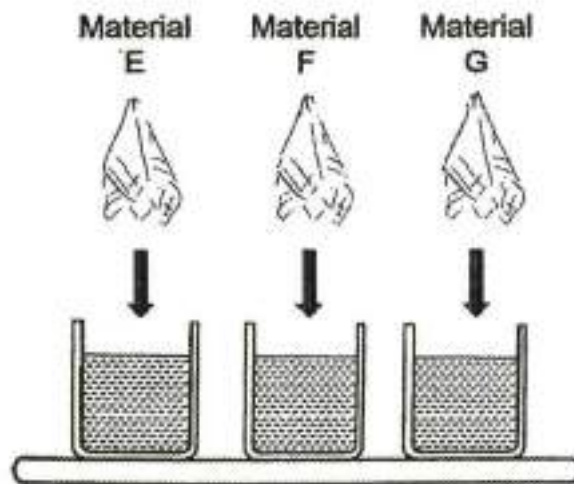


From the results shown above, which material, E, F or G is the most suitable for making the head of a mop? Explain your answer clearly. (2 marks)

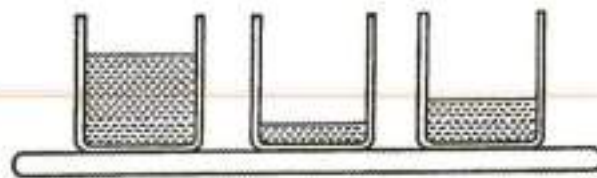
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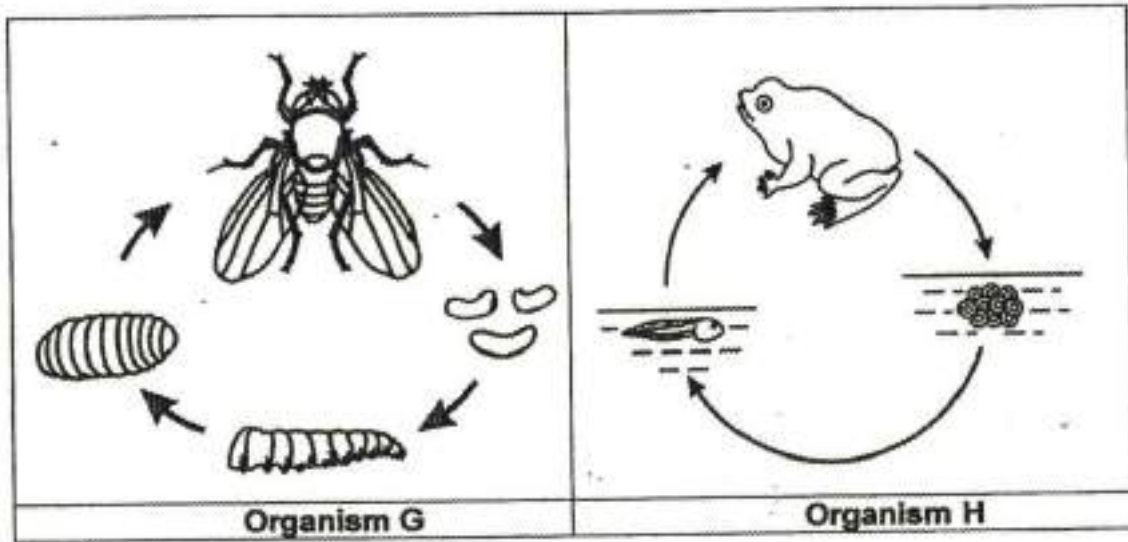
After the experiment, Zachary placed the mop into the cupboard. One week later, he opened the cupboard and noticed some black spots growing on the head of the mop.

What are these black spots and where did they come from? (1 mark)

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.

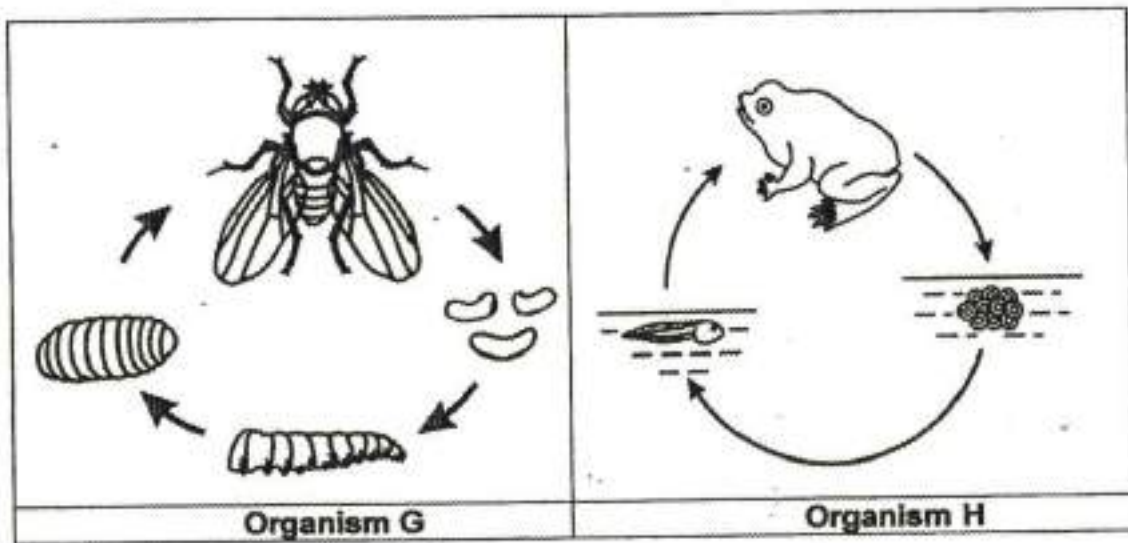
Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.

The diagrams below show the life cycle of organisms G and H.



Which group of animals does organism G belong to? Give a reason for your answer. (1 mark)

The diagrams below show the life cycle of organisms G and H.

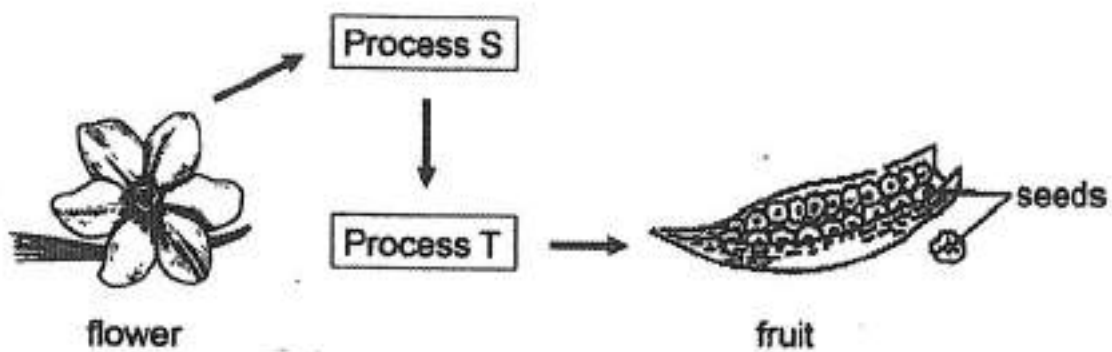


Based only on the diagrams, what is one similarity and difference between the life cycles of organism G and H? (2 marks)

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.

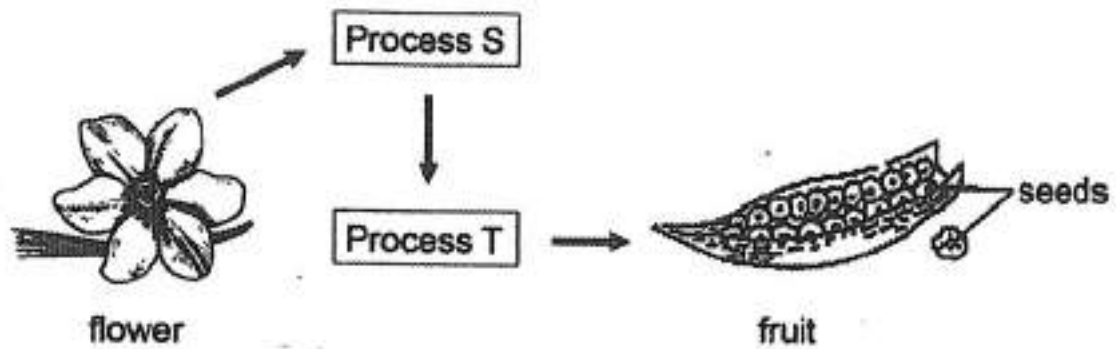
Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.

The diagram below shows how a fruit is formed from a flower of a certain plant.



Which process S or T is similar to the reproduction of humans? Name the process.

The diagram below shows how a fruit is formed from a flower of a certain plant.

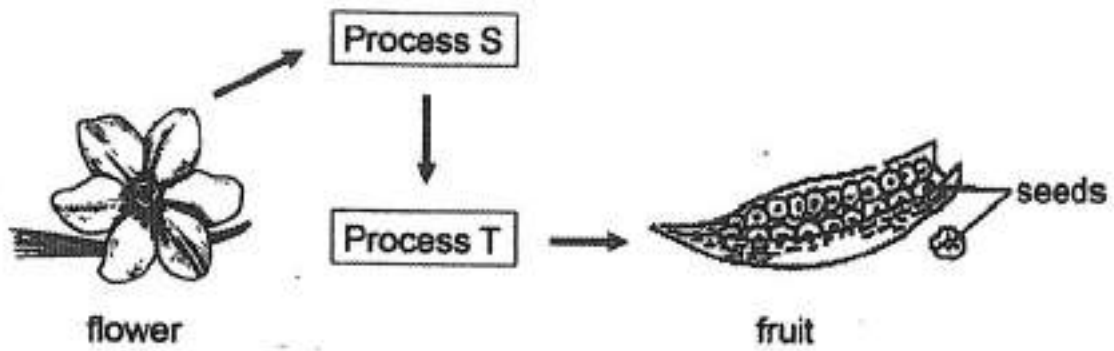


Explain why process S is important in the reproduction of flowering plants. (1 mark)

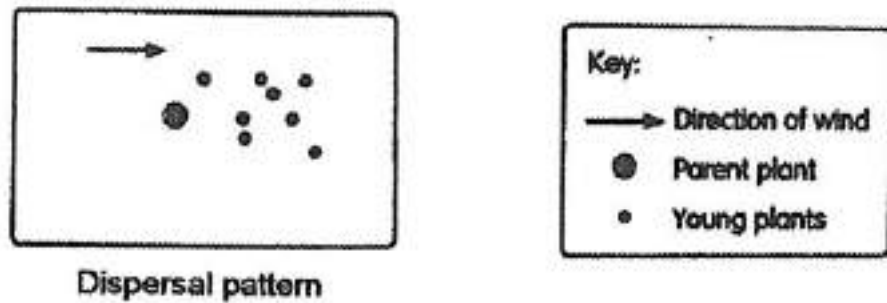
This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

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 how a fruit is formed from a flower of a certain plant.

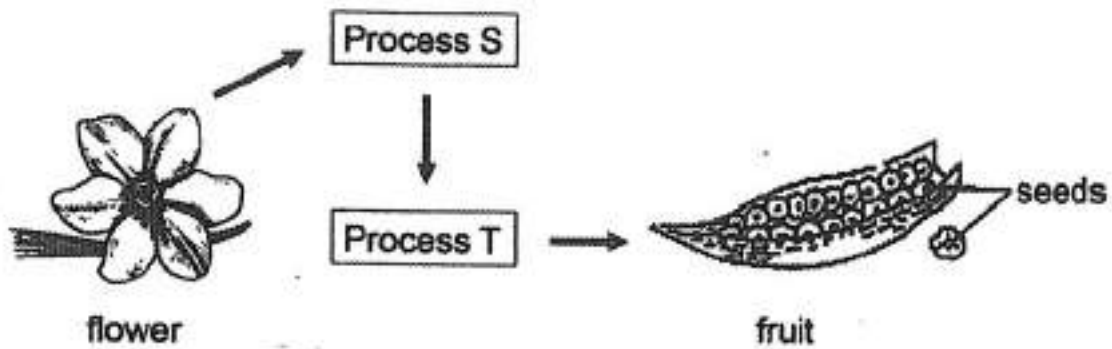


The diagram below shows the dispersal pattern of the plant.

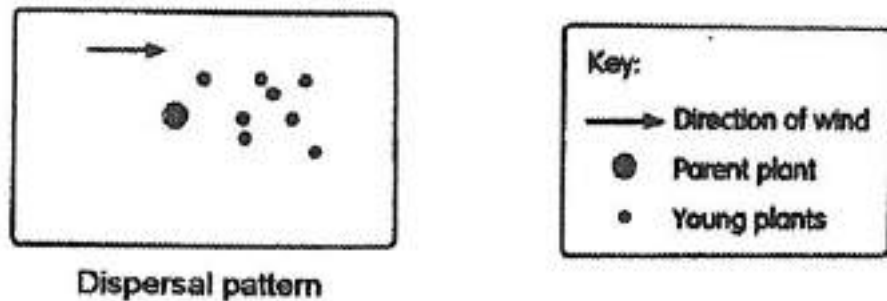


How are the seeds dispersed? State a characteristic of the seed that allows it to be dispersed this way.

The diagram below shows how a fruit is formed from a flower of a certain plant.



The diagram below shows the dispersal pattern of the plant.



Why do the new plants bear similar fruits as the adult plant? (1 mark)

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.

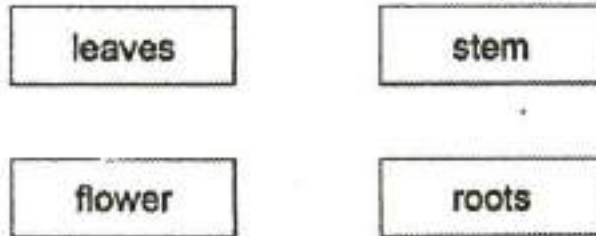
Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.

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Primary 5 Science (Term 4) 0 pts

Some parts of a plant are shown below.

Draw arrows () in the diagram to show how food is transported in a plant. [1]



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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.

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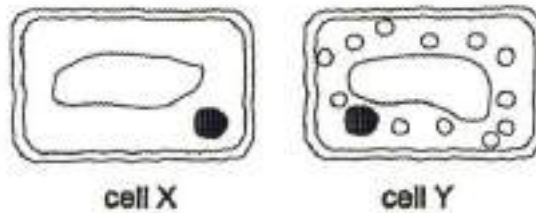
Primary 5 Science (Term 4) 0 pts

Some insects ate their way into the stem of a plant. This affected the growth of the roots of the plant. Explain why. (2 marks)

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The diagram below show cells X and Y observed under a microscope.



Which cell is likely taken from the roots of the plant? Explain why. [1]

Nathaniel used his legs to pedal his bicycle when he delivered parcels.



Describe clearly how the organs in his body enable oxygen in the environment to reach his legs. (2 marks)

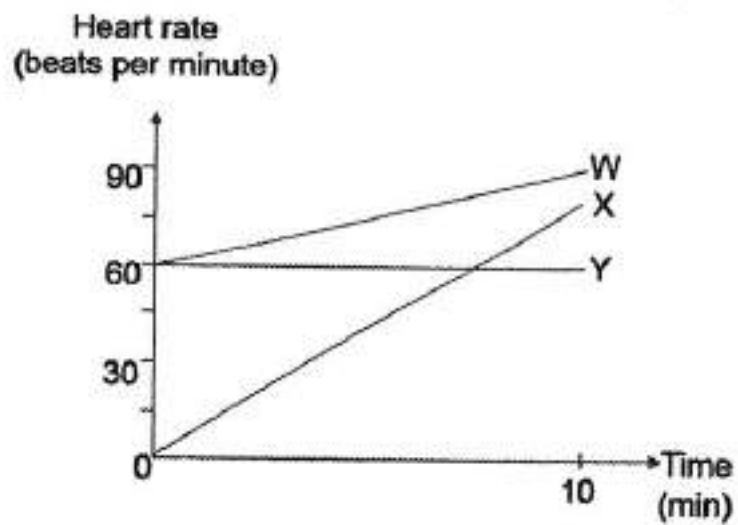
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Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.

Nathaniel used his legs to pedal his bicycle when he delivered parcels.

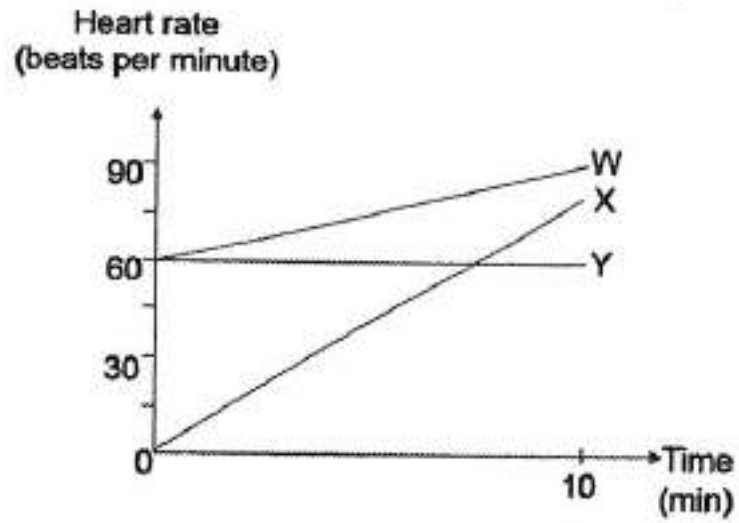


W, X and Y, in the graph below shows the possible heart rate when Nathaniel rode on the bicycle for 10 minutes.



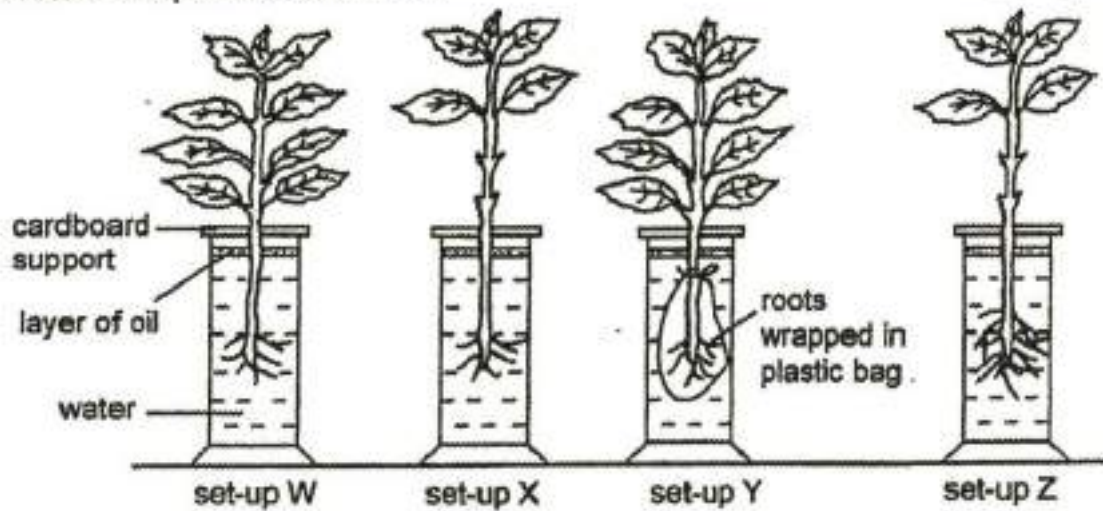
Which letter, W, X or Y in the graph shows Nathaniel's possible heart rate when he was riding his bicycle? Explain your answer clearly. (2 marks)

W, X and Y, in the graph below shows the possible heart rate when Nathaniel rode on the bicycle for 10 minutes.



Which letter W, X or Y, in the graph suggest that Nathaniel is sleeping? Explain why. (1 mark)

Four plants were placed next to the window for a few hours in identical containers with the same amount of water as shown below to show that the roots of the plant absorb water.

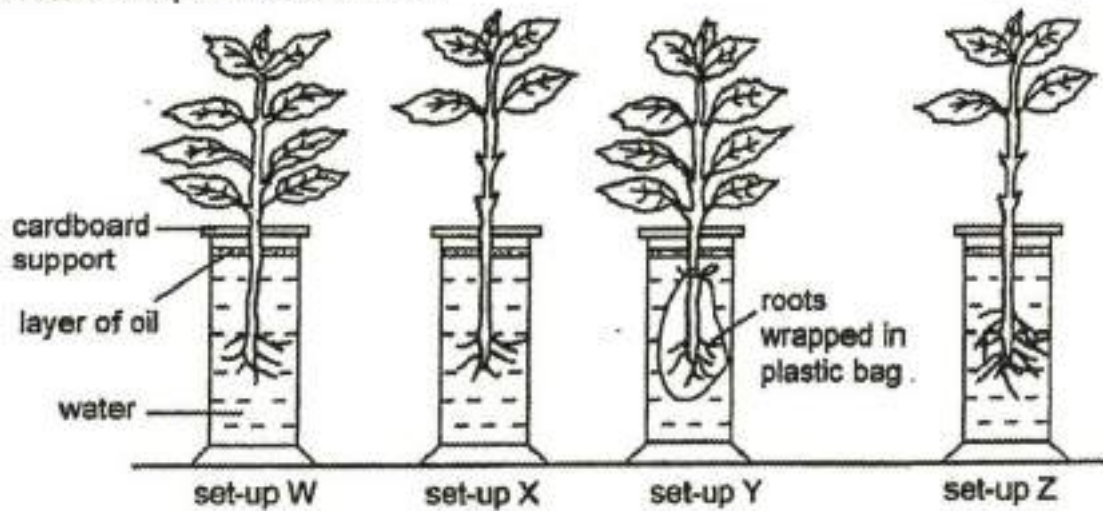


Which two set-ups should be compared to ensure a fair test? Give a reason for your answer. (1 mark)

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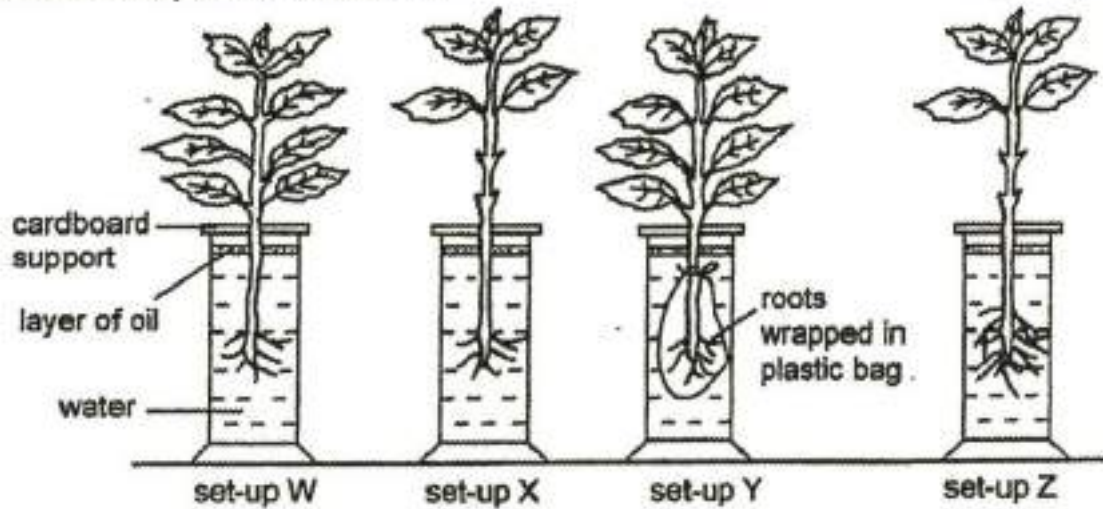


How does adding a layer of oil make the result accurate? (1 mark)

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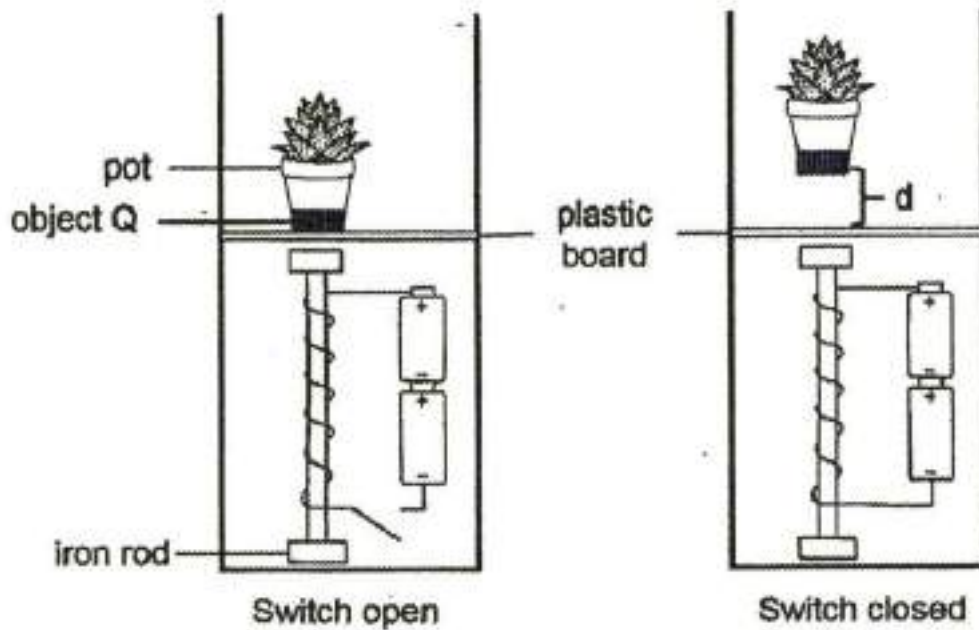


What is another function of the roots of the plant? (1 mark)

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.

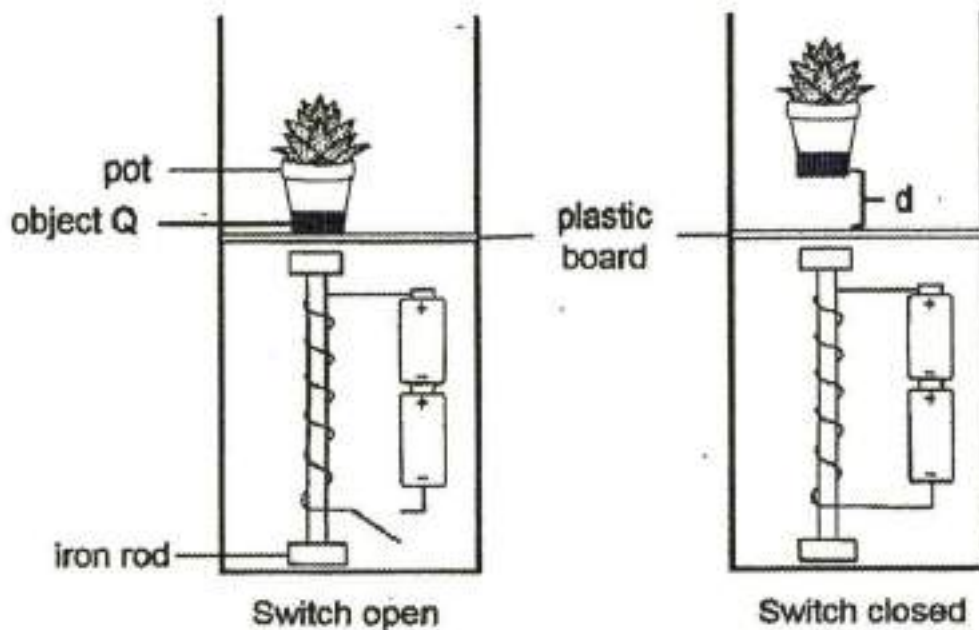
Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.

An electric circuit was set up underneath a plastic board as shown below. When the switch was closed, the pot attached to object Q was able to float on the surface of the plastic board.



What is object Q? Explain why the pot could float above the plastic board when the circuit was closed.

An electric circuit was set up underneath a plastic board as shown below. When the switch was closed, the pot attached to object Q was able to float on the surface of the plastic board.

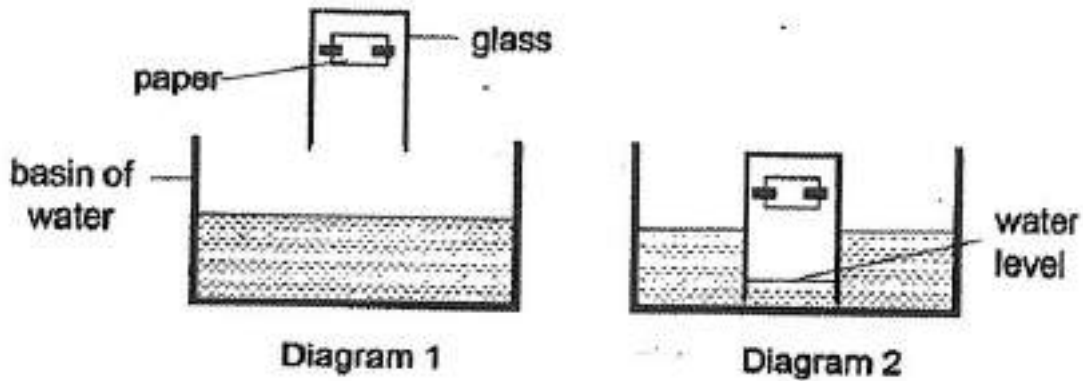


Suggest one way to reduce the distance between the plastic board and the pot (d) without making any changes to object Q? Give a reason for your answer. (1 mark)

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.

Gopal taped a piece of paper to the inner side of the glass. He then lowered the glass into a basin of water as shown in Diagram 1 below. Diagram 2 showed what was observed after Gopal lowered the glass into the basin of water.

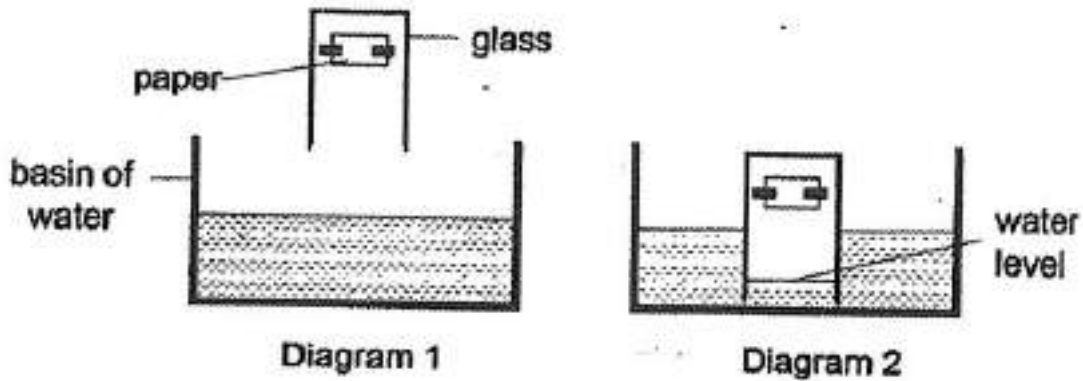


What did Gopal observe about the paper in Diagram 2? Explain your answer. (1 mark)

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.

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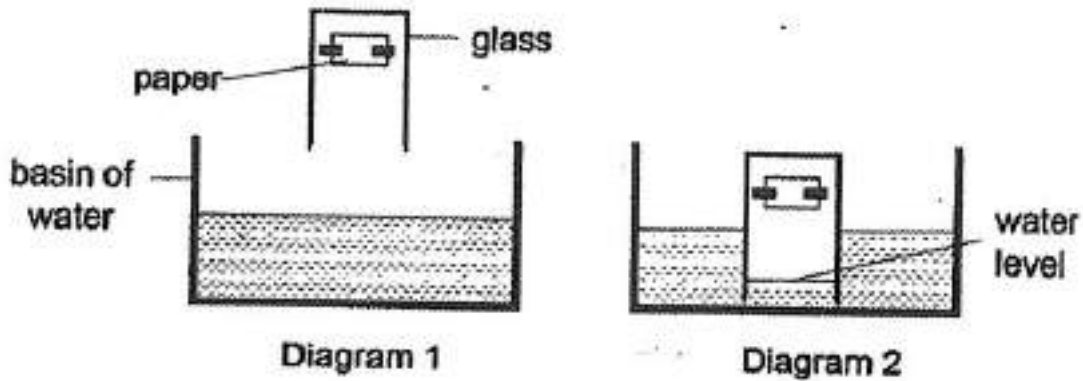


What did Gopal observe about the water level in the glass? Explain your answer. (1 mark)

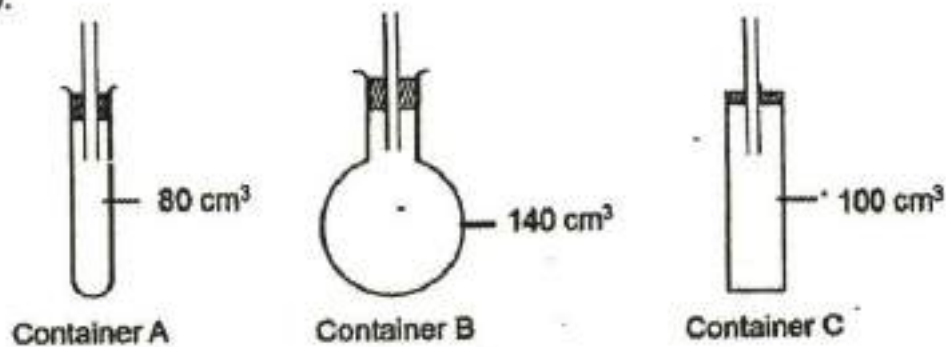
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Gopal taped a piece of paper to the inner side of the glass. He then lowered the glass into a basin of water as shown in Diagram 1 below. Diagram 2 showed what was observed after Gopal lowered the glass into the basin of water.



Gopal then tried to pump 100cm^3 of gas into the three containers as shown below.

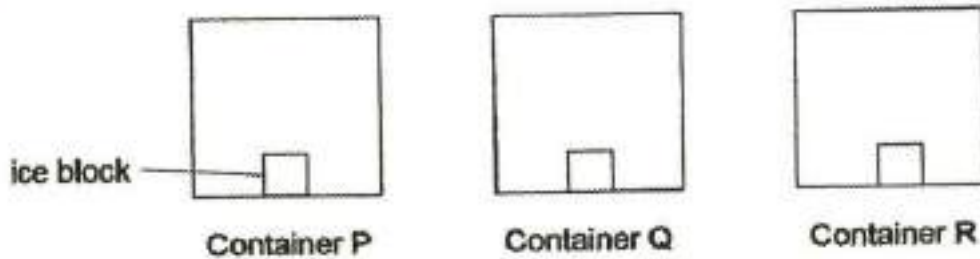


Which containers would Gopal be able to pump in another 100cm^3 of gas? Explain your answer. [1]

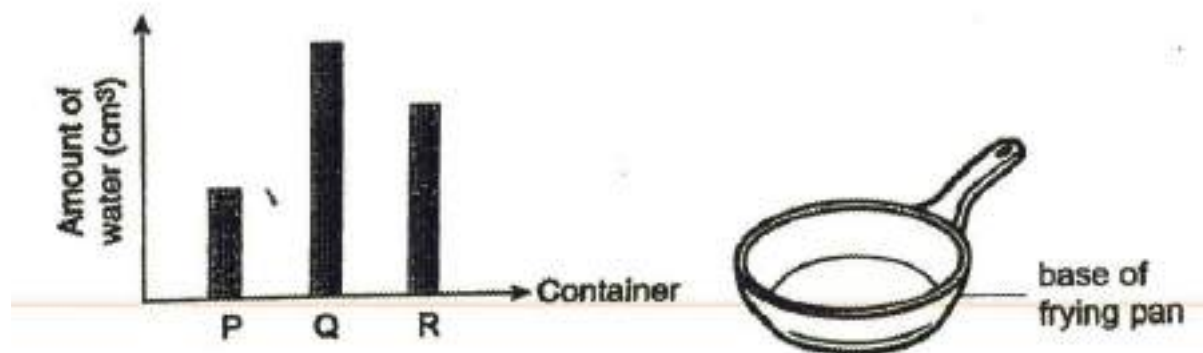
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Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.

June set up an experiment as shown below. She placed three identical ice blocks into each container made of a different material.



After 30 minutes, she removed the ice blocks from each container and measured the amount of water collected in each container. The results are shown below.

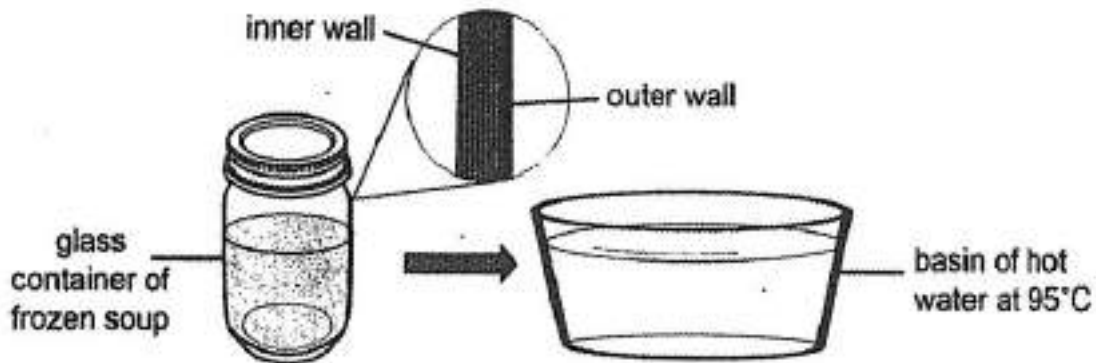


Which container P, Q or R is made of a material that is suitable to make the base of a frying pan? Explain your answer based on the results obtained. (2 marks)

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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.

June wanted to heat up some frozen soup for lunch. She placed the soup in a glass container with thick walls into a basin of hot water immediately after taking it out from the freezer.



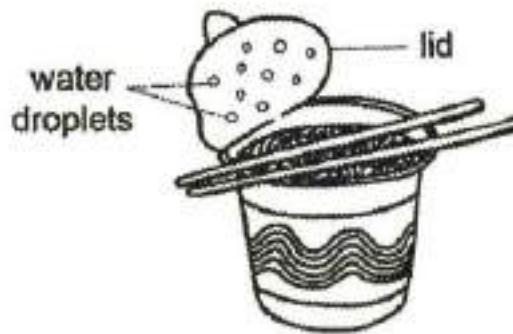
Explain why the glass container of frozen soup cracked after it was placed into the basin of hot water.

[1]

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.

Tim made some cup noodles by pouring hot water into the container and closed the lid. After 3 minutes, he opened the lid of the cup noodles and noticed some water droplets on the underside of the lid as shown below.

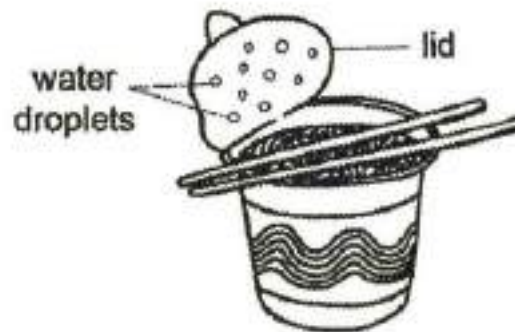


Explain how the water droplets on the underside of the lid were formed. (2 marks)

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Tim made some cup noodles by pouring hot water into the container and closed the lid. After 3 minutes, he opened the lid of the cup noodles and noticed some water droplets on the underside of the lid as shown below.



Tim was in a rush to finish the cup noodles but it was too hot. His brother suggested pouring the noodles onto a plate as shown below.



Explain why Tim's brother gave that suggestion.

[1]

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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.

Sheryl took out a spray bottle containing some water from her bag on a hot day. When she sprayed the water on her face, tiny water droplets in the form of mist came into contact with her skin and she felt cool.



Explain why Sheryl's face felt cool after she sprayed some water on it. (2 marks)

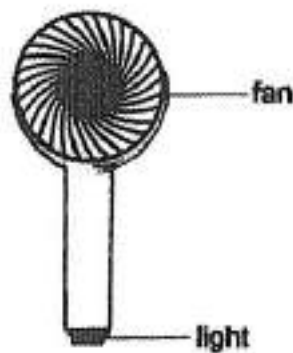
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Sheryl took out a spray bottle containing some water from her bag on a hot day. When she sprayed the water on her face, tiny water droplets in the form of mist came into contact with her skin and she felt cool.



After spraying the water on her face, Sheryl switched on her handheld fan as shown below.

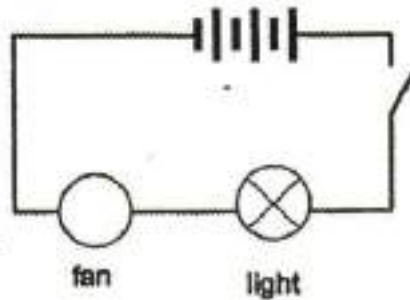


Why did Sheryl's face feel cooler when she held the fan near it? [1]

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The handheld fan has a light bulb which functions as a torch. The light bulb is connected to the handheld fan at the bottom. The circuit is as shown below.

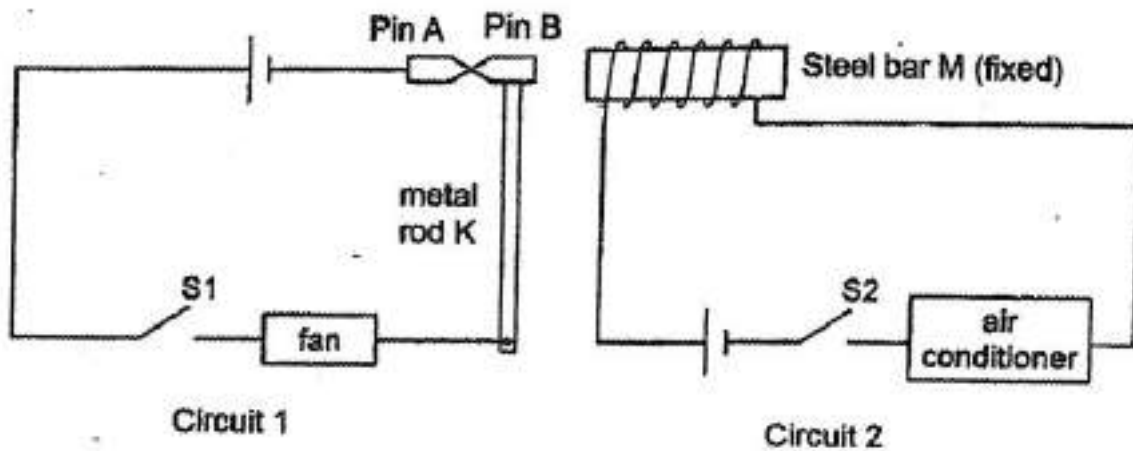


- (c) What is the arrangement of the fan and light in the circuit shown above? Suggest one disadvantage of this arrangement. [1]

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Josh designed an electrical system for a fan and an air conditioner in his bedroom as shown below. The system prevents both the fan and air conditioner from being turned on at the same time.



M is a steel bar placed inside a coil of wire. A and B are two steel pins in contact with each other. Pin A is fixed while Pin B is attached to metal rod K and can move sideways.

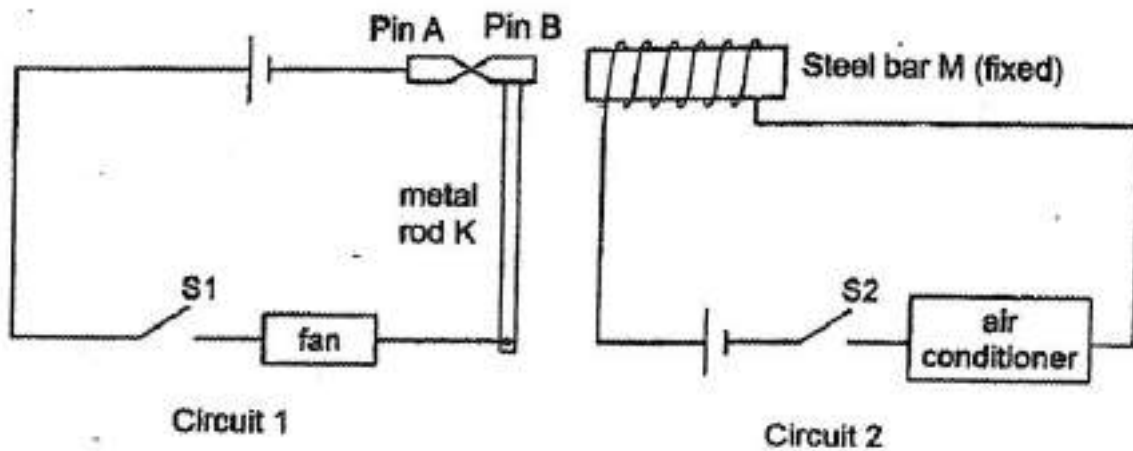
On a hot afternoon, Josh closed switch S1 to turn the fan on. Ten minutes later, he still felt very warm and closed switch S2 to turn the air conditioner on.

State the movement of Pin B when switch S2 was closed. (1 mark)

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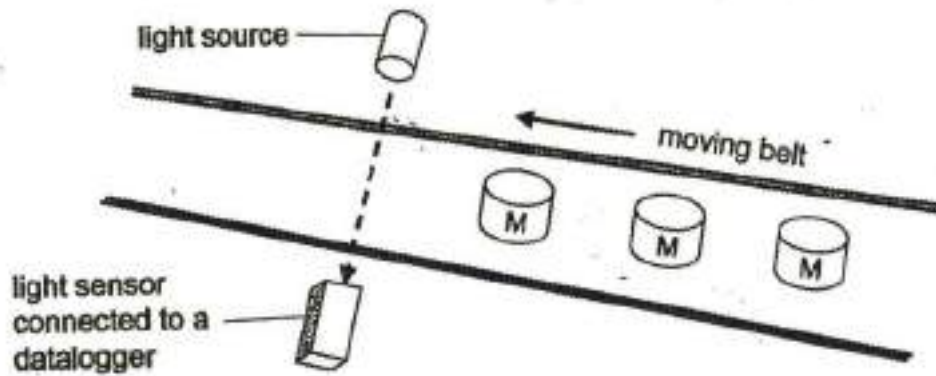
On a hot afternoon, Josh closed switch S1 to turn the fan on. Ten minutes later, he still felt very warm and closed switch S2 to turn the air conditioner on.

What would happen to the fan when Josh closed switch S2? Explain your answer. (2 marks)

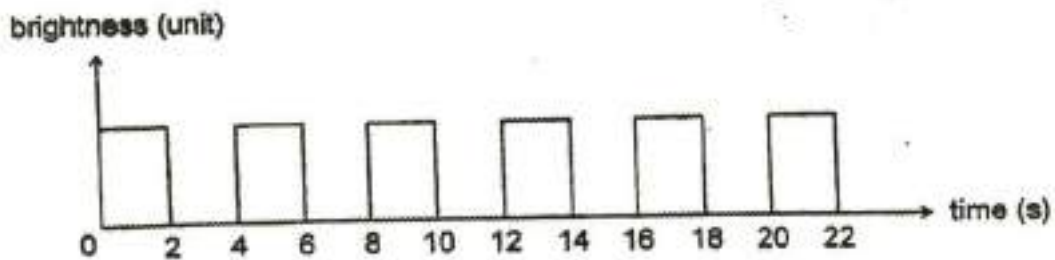
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In a factory, a light source and a light sensor were set up to count the number of identical container M on a moving belt as shown below.



The following results were recorded as shown below.

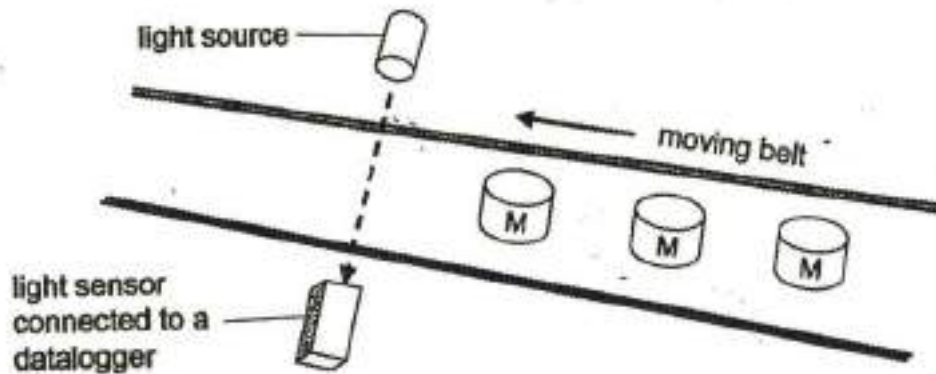


How could the number of container M be counted using the set-up above? (2 marks)

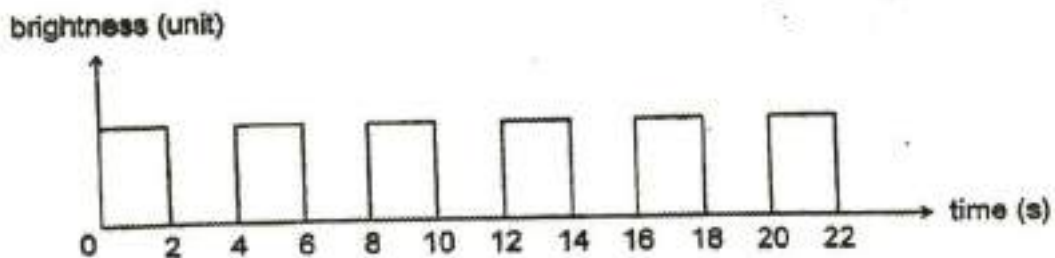
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In a factory, a light source and a light sensor were set up to count the number of identical container M on a moving belt as shown below.



The following results were recorded as shown below.



Based on the above results, what is the number of container M that passed the sensor in 14 seconds? (1 mark)

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