

MAHA BODHI SCHOOL 2023 END OF YEAR EXAMINATION PRIMARY THREE SCIENCE (BOOKLET A)

| Name:() | |
|---|-----|
| Class : Primary 3 | |
| Date: 26 Oct 2023 | |
| Total Duration for Booklets A and B: 1 h 30 n | nin |

INSTRUCTIONS TO CANDIDATES:

- 1. Do not turn over this page until you are told to do so.
- 2. Follow all instructions carefully.
- 3. Answer all questions.
- 4. Shade your answers in the Optical Answer Sheet (OAS) provided.

This booklet consists of 13 printed pages.

BOOKLET A: $[24 \times 2 \text{ marks} = 48 \text{ marks}]$

For each question from 1 to 24, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Use a 2B pencil to shade your answers on the Optical Answer Sheet (OAS).

1. The diagram below shows some books.



Which one of the following is a characteristic of the books above?

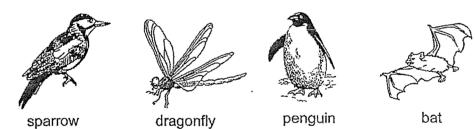
- (1) It can grow.
- (2) It does not reproduce.
- (3) It needs air and food to survive.
- (4) It responds to changes around it.
- 2. Amy observed her pet hamsters for 9 days and recorded her observations in the table below.

| Day | Number of hamsters |
|-----|--------------------|
| 1 | 3 |
| 9 | 7 |

Which of the following characteristics of living things did she observe?

- (1) Living things grow.
- (2) Living things reproduce.
- (3) Living things respond to changes.
- (4) Living things need air, food and water to survive.

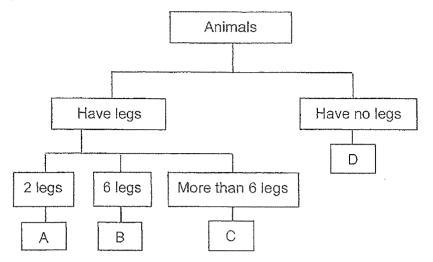
- 3. Which statement is true about all flowering plants?
 - (1) They live on land.
 - (2) They do not bear fruits.
 - (3) They reproduce by seeds.
 - (4) They reproduce by spores.
- 4. Which of the following are found in all plants?
 - A, fruits
 - B. leaves
 - C. stems
 - D. roots
 - (1) A and B only
 - (2) A, C and D only
 - (3) B, C and D only
 - (4) A, B, C and D
- 5. The diagrams below show four living things.



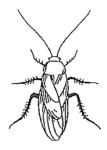
Which of the following statement(s) is/are true about the similarities between these living things?

- A. They have wings.
- B. They have only two legs.
- C. They reproduce by laying eggs.
- D. They have feathers as outer covering.
- (1) A only
- (2) A and C only
- (3) B and D only
- (4) A, B and C only

6. Study the chart below.



Study the animal below.



Where would the animal be placed in the chart above?

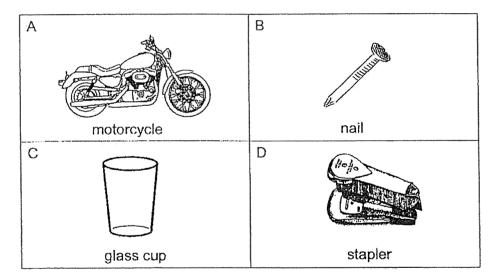
- (1) A
- (2) B
- (3) C
- (4) D
- 7. Which one of the following statements about amphibian is true?
 - (1) It lives in water only.
 - (2) It has a hard outer covering.
 - (3) It gives birth to its young alive.
 - (4) It can breathe through their skin and lungs.

8. The diagram below shows some mushrooms.



Which of the following is a characteristic of the mushrooms above?

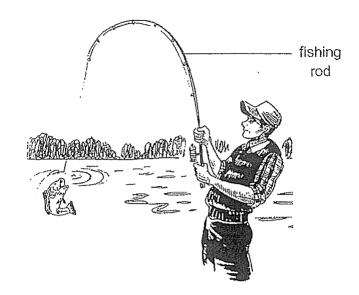
- (1) It reproduces by spores.
- (2) It can make its own food.
- (3) It can move from one place to another.
- (4) It can only be seen under a microscope.
- 9. Study the objects shown below.



Which of the object(s) shown above is/are made of only one material?

- (1) B only
- (2) Conly
- (3) B and C only
- (4) A and D only

10. David went fishing at the river.



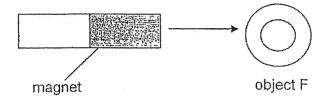
What property of material is shown by the fishing rod above?

- (1) Ability to absorb water.
- (2) Ability to float in water.
- (3) Ability to bend without breaking.
- (4) Ability to allow light to pass through.

11. Which statement is true about magnets?

- (1) Some magnets have north pole only.
- (2) The bigger the magnet, the stronger its magnetic force.
- (3) Magnets attract each other when their like poles face each other.
- (4) A freely suspended magnet will point to North-south direction when at rest.

12. Zhixuan found an unknown object F. He used a magnet and moved the magnet towards object F.

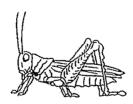


Without the magnet touching object F, it moved away from the magnet.



Which statement is the reason why object F moved away from the magnet?

- (1) It is a magnet.
- (2) It is made of aluminium.
- (3) It is a non-metal material.
- (4) It is attracted to the magnet.
- 13. The diagram below shows a grasshopper.



Which statement is false about its life cycle?

- (1) Its young look like its adult.
- (2) It has 3 stages in its life cycle.
- (3) It does not have an egg stage.
- (4) Its nymph does not have wings.

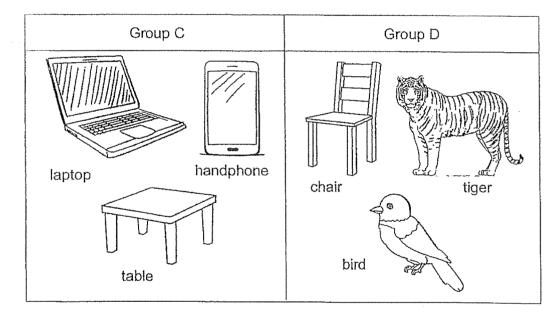
14. Study the table below.

| young look like its adult | young do not look like its adult |
|---------------------------|----------------------------------|
| chicken | mosquito |
| frog | butterfly |

Which one of the animals below has been classified wrongly?

- (1) frog
- (2) chicken
- (3) butterfly
- (4) mosquito

15. Study the classification table below.



Which one of the objects above has been wrongly classified?

- (1) bird
- (2) table
- (3) chair
- (4) handphone

16. Gerald observed three different types of plants, F, G and H, for 6 months. He recorded the number of flowers each of them produced.

| District | Number of flowers produced | |
|----------|--|--|
| Plant | 1 st to 3 rd month | 4 th to 6 th month |
| F | 58 | 60 |
| G | 0 | 0 |
| H | 0 | 5 |

Based on the table above, which of the following shows the correct conclusions about F, G and H?

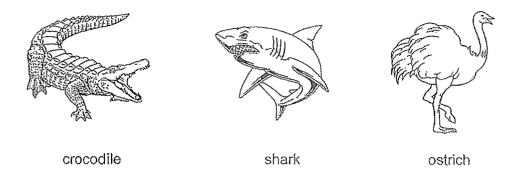
| | F | G | Н . |
|-----|-----------------|---------------------|---------------------|
| (1) | cannot tell | non-flowering plant | flowering plant |
| (2) | flowering plant | non-flowering plant | non-flowering plant |
| (3) | flowering plant | cannot tell | cannot toll |
| (4) | flowering plant | cannot tell | flowering plant |

- 17. Noah found animal X and told Sarah that it was an insect. To find out if Noah was correct, Sarah decided to carry out the following observation.
 - A. Find out if it can fly.
 - B. Count the number of legs of the animal.
 - C. Count the number of body parts of the animal.
 - D. Find out whether it prefers to be in bright or dark areas.

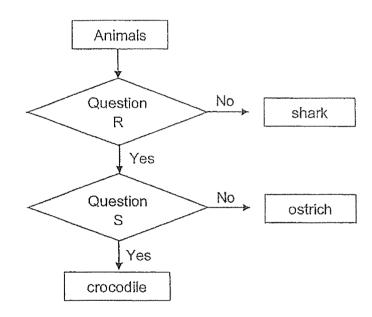
Which of the above observations will help Sarah confirm whether the animal is an insect?

- (1) A and C only
- (2) A and B only
- (3) B and C only
- (4) C and D only

18. Study the three animals below.



Study the flowchart below.



Which of the following questions are correct?

| | Question R | Question S |
|-----|-----------------------|-----------------------|
| (1) | Does it lay eggs? | Does it live on land? |
| (2) | Does it live on land? | Does it have scales? |
| (3) | Does it have scales? | Does it lay eggs? |
| (4) | Does it lay eggs? | Does it have scales? |

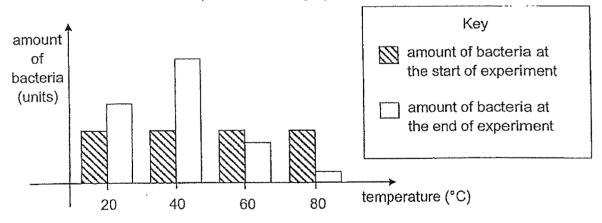
19. Study the table below.

| Living things | reproduces by seeds | makes its own food | cannot be seen without a microscope |
|---------------|------------------------|-----------------------|---|
| J | yes | yes | no |
| K | no | no | no |
| L | no . | yes | no |
| М | no | no | yes |

Which one of the following represents bacteria?

- (1) J
- (2) K
- (3) L
- (4) M

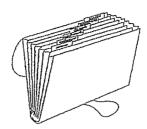
20. Jack wanted to find out if the temperature of the surroundings affects the growth of bacteria. He provided the same amount of water to the bacteria and placed them in locations of different temperatures. The graph below shows the results.



Based on the graph above, which statement(s) about the bacteria is/are true?

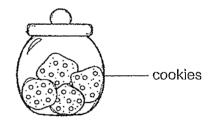
- A. Bacteria grew most at 40°C.
- B. Bacteria do not need water to grow.
- C. Temperature did not affect its growth.
- (1) A only
- (2) Conly
- (3) A and B only
- (4) B and C only

21. The diagram below shows a plastic file folder a student brings to school.



Which of the following properties of plastic make it a suitable material for a file folder?

- A. It is strong.
- B. It does not absorb water.
- C. It can float on water.
- D. It allows light to pass through.
- (1) A and B only
- (2) C and D only
- (3) A, B and C only
- (4) B, C and D only
- 22. Four pupils observed a container of cookies and made the following statements.



Jen

: The container is heavy.

Tim

: I cannot bend the container.

May

: The container can break easily.

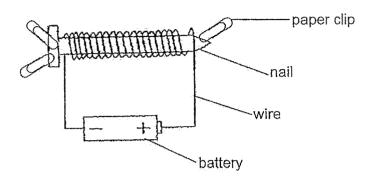
Tom

: I can see the cookies through the container.

From the observations made by the pupils, which of the following materials is the container most likely made of?

- (1) ceramic
- (2) glass
- (3) metal
- (4) wood

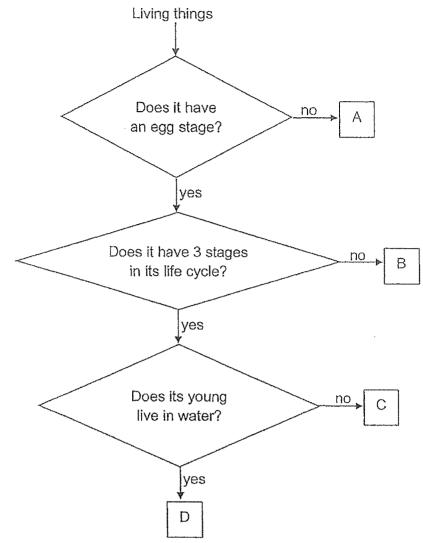
23. Joel made a temporary magnet using the electrical method as shown below. He used the electromagnet to attract some paper clips.



He wanted the magnet to attract more clips. Which one of the following steps will not cause the magnet to attract more clips?

- (1) He should use more batteries.
- (2) He should a battery with higher voltage.
- (3) He should replace the nail with a copper nail.
- (4) He should increase the number of coils of wire around the iron nail.

24. Study the flowchart below.



Which one of the animals A, B, C or D represents a butterfly?

- (1) A
- (2) B
- (3) C
- (4) D

END OF BOOKLET A

GO ON TO BOOKLET B



MAHA BODHI SCHOOL 2023 END OF YEAR EXAMINATION PRIMARY THREE SCIENCE (BOOKLET B)

| Name:(|) |
|---|-----|
| Class: Primary 3 | |
| Date: 26 Oct 2023 | |
| Total Duration for Booklets A and B: 1 h 30 | min |
| | |

INSTRUCTIONS TO CANDIDATES:

- 1. Do not turn over this page until you are told to do so.
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- 3. Answer all questions.
- 4. Write all your answer in this booklet.

| Booklet | Marks Obtained | Max Marks |
|---------|----------------|-----------|
| Α | | 48 |
| В | | 32 |
| Total | | 80 |

| Parent's signature: | |
|---------------------|--|
|---------------------|--|

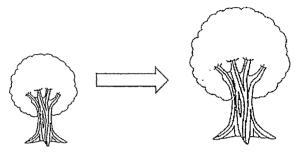
This booklet consists of **10** printed pages.

BOOKLET B: [32 marks]

For questions 25 to 34, write your answers in this booklet.

The number of marks available is shown in the brackets [] at the end of each question or part-question.

25. Study the diagram of an apple tree below.



(a) The height of the apple tree increased over the next few months.

What characteristic of living things does it shows?

[1]

(b) Sally observed the tree for seven days. She saw a few monkeys climbing the trees and picking the apples to eat. She recorded her observations in the table below.

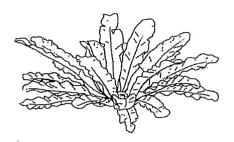
| Day | Number of apples on the tree |
|-----|------------------------------|
| 1 | 7 |
| 3 | 4 |
| 7 | 2 |

Based on the table above, state the change in the number of apples on the tree over the seven days. [1]

26. Ben went to the science garden and observed a hibiscus plant and a fern.



hibiscus plant

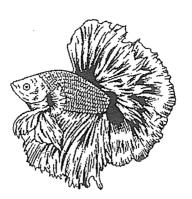


bird's nest fern

| (a) | State how the hibiscus plant and the bird's nest fern reproduce. | [2] |
|-----|--|-----|
| | Hibiscus plant : | |
| | Bird's nest fern : | |
| (b) | Ben suggested that only one of the plants can make their own food. Do you agree? Explain your answer. | [2] |
| | | |
| | | |
| | | |

27. (a) The diagram below shows a fighting fish.

(b)

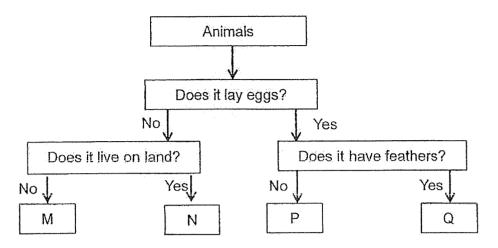


| It is | a fis | sh because it | [2] |
|-------|--------------|-------------------------------|-----|
| Tick | (~) | the correct bracket(s) below. | |
| (|) | has scales | |
| (|) | has moist skin | |
| (|) | breathes through its gills | |
| (|) | reproduces by laying eggs | |
| Stuc | ly th | ne diagram below. | |



| Does the animal above belong to the same group as the fish in (a)? Explain your answer. | [1] |
|---|-----|
| | |

28. Study the flowchart shown below.



- (a) Based on the flowchart above, state all the characteristics of Animal N. [1]
- (b) Study the animal below.



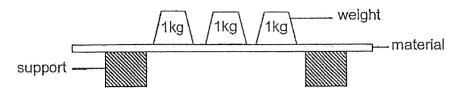
Classify the above animal based on the groups in the flowchart, M, N, P or Q. Explain your answer. [2]

29. All conducted an experiment as shown below. He used two similar slices of bread, S and T. He toasted bread S and added water to bread T only. Then, he left both breads in a cupboard for a few days. He observed both slices of bread and recorded the results in the table below.

| Bread S | Bread T |
|-------------|-----------------|
| (toasted) | (water added) |
| | |
| | black organisms |
| _ | (toasted) |

- (a) State the group of living things the black organisms growing on bread T belong to. [1]
- (b) Based on his experiment, explain why the black organisms grew on bread T and not bread S. [2]

30. Mr Tan placed identical weights of 1kg on three materials, J, K and L, until they broke.



The table below shows the most number of 1kg weights placed on each material before it broke.

| Material | most number of 1kg weights before it broke |
|----------|--|
| J | 89 |
| К | 110 |
| L | 28 |

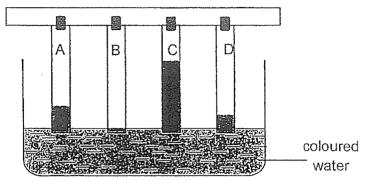
(a) State the property of the material that Mr Tan is testing.

[1]

(b) Tick (✓) the variables in the table below that must be kept the same for this experiment to be a fair test. [1]

| | Variables to be kept the same |
|------------------------|-------------------------------|
| Length of material | |
| Thickness of material | |
| Number of 1 kg weights | |

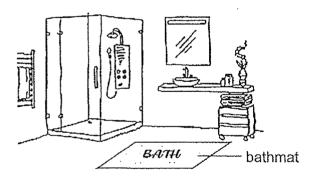
31. Benjamin set up the experiment below to find out how much water the materials A, B, C and D absorb in 20 minutes.



(a) Write down the correct arrangement of the four materials A, B, C and D according to the amount of water it absorbed. [1]

| Amount of water absorbed | | | | | | |
|--------------------------|--|--|--|--|--|--|
| Least → Most | | | | | | |
| | | | | | | |
| | | | | | | |

(b) A bathmat is usually placed inside a bathroom to absorb extra water dripping after someone is done bathing.



Based on the experiment above, which material A, B, C and D is most suitable to make a bathmat? Explain your answer. [2]

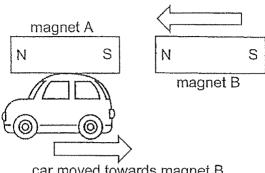
| | - |
|--|---|
| | - |
| | - |

| | | N magnet | |
|-----|------|---|---------------|
| (a) | (i) | He moved the north pole of the magnet towards the nails. | |
| | | State what he will observe. | [1] |
| | (ii) | Explain his observation in a(i). | [1] |
| | | | |
| (b) | (i) | Why did he use the pole of the magnet and not the middle magnet to attract the most number of nails? | of the [1] |
| | pole | eeph wanted to find out if the object Z is a magnet. He brought the of the magnet near part X of object Z. The object was attracted gnet. | |
| | | magnet object Z | |
| | | S N \longleftrightarrow X Y | |
| | (ii) | Using only the magnet given, describe how Joseph can confirm the object Z is a magnet. | n that [1] |
| | | | |
| | | | |
| | | | |

Joseph conducted an experiment using a magnet and some iron nails.

32.

Alana made a toy as shown below. She glued magnet A to the top of the car. 33. She held another magnet B near the car as shown below.



car moved towards magnet B

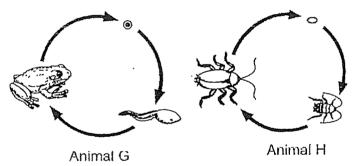
| *** | car moved backwards, towards magnet B. Explain why. |] |
|------|---|-----|
| (i) | She wanted the car to move forward by moving away from the magnet. Using magnet B, state what she needed to do. | [1] |
| (ii) | Explain your answer in b(i). | [2 |

Marks: 14 34. Study the table below.

| Life cycles of animals | | | | | |
|--------------------------------|---------------------------------|--|--|--|--|
| Y | Z | | | | |
| frog chicken grasshopper | beetle butterfly mosquito | | | | |

| (a) | State the suitable headings for Y and Z. | [2] |
|-------------|---|-----|
| | Y: | |
| | Z: | |
| ~ 11 | who life and a of the free enimals holes. | |

Study the life cycles of the two animals below.



(ii) Based on the diagrams above, state a similarity between the life cycles of animals G and H. [1]

Based on the diagrams above, state a difference between the life cycles animals G and H. [1]

Marks: / 4

~ END OF PAPER ~

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SCHOOL: MAHA BODHI SCHOOL

LEVEL : PRIMARY SUBJECT : SCIENCE TERM : 2023 SA2 PRIMARY 3

SECTION A

| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 2 | 2 | 3 | 3 | 1 | 2 | 4 | 1 | 3 | 3 |
| Q11 | Q12 | Q13 | Q14 | Q15 | Q16 | Q17 | Q18 | Q19 | Q20 |
| 4 | 1 | 3 | 1 | 3 | 4 | 3 | 2 | 4 | 1 |
| Q21 | Q22 | Q23 | Q24 | • | | | | | |
| 1 | 2 | 3 | 2 | | | | | | |

SECTION B

| Q25a Living things can grow Q25b It decreased Q26a Hibiscus: seeds Bird's nest fern: spores Q26b No, as all plants can make their own food. Q27a | | |
|--|-------|--|
| Q26a Hibiscus: seeds Bird's nest fern: spores Q26b No, as all plants can make their own food. Q27a ✓ has scales breathe through its gills Q27b No, as it does not have scales and does not breathe through its gills. Q28a It lives on land and does not lay eggs. Q28b Group P as it does not have feathers and lay eggs. Q29a Fungi Q29b Bread S has no water but Bread T has water. Q30a Strength Q30b ✓ Length of material | Q25a | Living things can grow |
| Q26a Bird's nest fern: spores Q26b No, as all plants can make their own food. Q27a ✓ has scales breathe through its gills Q27b No, as it does not have scales and does not breathe through its gills. Q28a It lives on land and does not lay eggs. Q28b Group P as it does not have feathers and lay eggs. Q29a Fungi Q29b Bread S has no water but Bread T has water. Q30a Strength Q30b ✓ Length of material | Q25b | It decreased |
| Q27a | Q26a | |
| Q27b No, as it does not have scales and does not breathe through its gills. Q28a It lives on land and does not lay eggs. Q28b Group P as it does not have feathers and lay eggs. Q29a Fungi Q29b Bread S has no water but Bread T has water. Q30a Strength Q30b ✓ Length of material | Q26b | No, as all plants can make their own food. |
| Q28a It lives on land and does not lay eggs. Q28b Group P as it does not have feathers and lay eggs. Q29a Fungi Q29b Bread S has no water but Bread T has water. Q30a Strength ✓ Length of material | Q27a | , • |
| Q28b Group P as it does not have feathers and lay eggs. Q29a Fungi Q29b Bread S has no water but Bread T has water. Q30a Strength Q30b Length of material | Q27b | No, as it does not have scales and does not breathe through its gills. |
| Q29a Fungi Q29b Bread S has no water but Bread T has water. Q30a Strength Q30b Length of material | Q28a | It lives on land and does not lay eggs. |
| Q29b Bread S has no water but Bread T has water. Q30a Strength C30b Length of material | Q28b | Group P as it does not have feathers and lay eggs. |
| Q30a Strength O30b Length of material | Q29a | Fungi |
| O30b Length of material | Q29b | Bread S has no water but Bread T has water. |
| | Q30a | Strength |
| | Q30b | |
| Q31a B, D, A, C | Q31a | B, D, A, C |
| Q31b C, it is the most absorbent material and a bathmat is supposed to dry your feet so the material has to be absorbent. | Q31b | |
| Q32ai The iron nails will be attracted to the magnet. | Q32ai | The iron nails will be attracted to the magnet. |

| Q32aii | The iron nails are made of magnetic material and will be attracted to the magnet. |
|--------|--|
| Q32bi | The poles have the strongest magnetic force. |
| Q32bii | Turn object 2 around, if it repels, it is a magnet as only magnets can repel. |
| Q33a | As the unlike poles are facing each other, the magnet can attract. |
| Q33bi | Turn magnet B around so that the unlike poles will face each other. |
| Q33bii | When the like poles face each other, they repel. |
| Q34a | Y: 3 stages Z: 4 stages |
| Q34bi | Both have three stages in their life cycles. |
| Q34bii | Animal G's young does not look like the adult but Animal H's young looks like the adult. |