REACH ASSESSMENTS™ ICAS ASSESSMENTS™

PAPER C PRACTICE QUESTIONS

Note: Some UNSW Global assessments are only available online.

Science

DO NOT OPEN THIS BOOKLET UNTIL INSTRUCTED.

Read the instructions on the **ANSWER SHEET** and fill in your **NAME**, **SCHOOL** and **OTHER INFORMATION.**
Use a pencil. Do **NOT** use a coloured pencil or a pen.
Rub out any mistakes completely.

You **MUST** record your answers on the **ANSWER SHEET**.

Mark only **ONE** answer for each question.

Your score will be the number of correct answers.

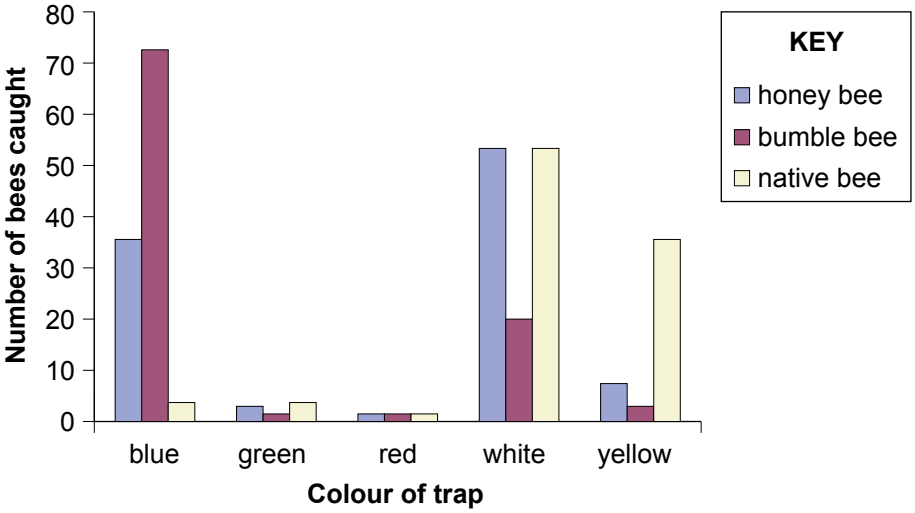
Marks are **NOT** deducted for incorrect answers.

Use the information provided to choose the **BEST** answer from the four possible options.

On your **ANSWER SHEET** fill in the oval that matches your answer.

You may use a calculator and a ruler.

1. The graph shows the number of each type of bee caught in different coloured traps during an experiment.



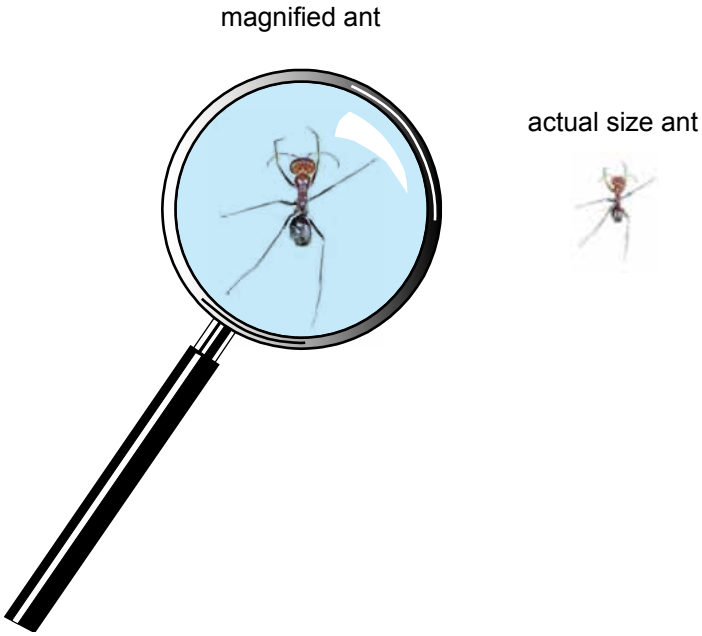
What was the colour of the trap in which most of the honey bees were caught?

(A) blue
(B) green
(C) white
(D) yellow

2. An ant is shown at its actual size and as it appeared through a magnifying glass.

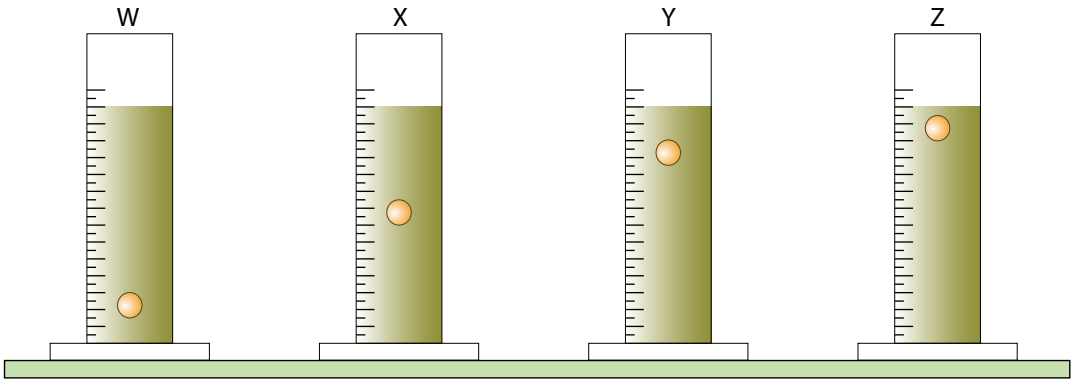
How many times larger did the ant appear through the magnifying glass?

(A) half as large
(B) one and a half times as large
(C) twice as large
(D) two and a half times as large



3. Viscosity is a measure of a liquid's thickness and stickiness. The more viscous the liquid, the longer it takes for an object to pass through it. Generally, the viscosity of a liquid decreases as temperature increases.

The diagram shows the distances clay balls of the same size pass through four motor oils in the same time. The four oils were at the room temperature.



When cold, high viscosity motor oil may not get to the part of the engine it is supposed to protect. When hot, low viscosity oil may not protect engine parts because it does not stick to them.

Which motor oil would be best for protecting engine parts at high temperatures?

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

For questions 4 and 5 use the information below.

Mud bricks are made from a mixture of clay, sand and straw. The mixture is poured into a wooden mould until it becomes firm. The moulded bricks are then turned out of the moulds and dried over time in the sun.

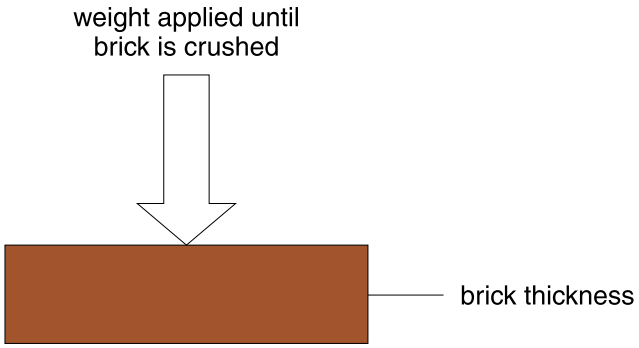
The table gives some information about mud bricks made by some students. Each student used the same amount of water and made the same amount of brick mixture.

Student	Composition by volume (%)			Brick making Information			
	Clay	Sand	Straw	Straw length (cm)	Size (cm^3) (length × width × thickness)	Turning time (hours)	Drying time (days)
Jan	30	40	30	5	50 × 20 × 15	24	20
John	15	70	15	5	50 × 20 × 15	24	20
Mary	15	70	15	10	50 × 30 × 15	24	20
Matt	30	40	30	10	50 × 20 × 15	12	20

4. After 10 days Jan's bricks were dry on both sides, but Matt's bricks were dry on one side only. What would most likely account for this difference?

(A) Jan used more sand to make each brick than Matt.
(B) Jan used less water to make her bricks than Matt.
(C) Matt's bricks were thicker than Jan's bricks.
(D) Matt turned his bricks so that one side never faced the sun.

5. The diagram shows how the students tested their mud bricks to see which one was strongest.



Mary's bricks were the strongest.

Which characteristic of the strongest brick distinguishes it from the other bricks?

(A) brick width
(B) drying time
(C) straw length
(D) brick composition

END OF PAPER

PAPER **C** **S**

REACH ASSESSMENTS™

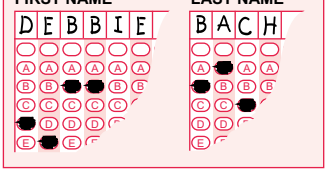
UNSW Global

HOW TO FILL OUT THIS SHEET:

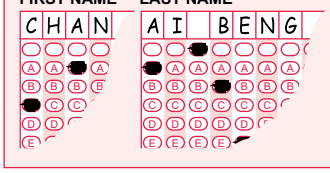
USE A PENCIL

- Print your details clearly in the boxes provided.
- Make sure you fill in only one oval in each column.
- Rub out all mistakes completely.
- Do not use a coloured pencil or pen.

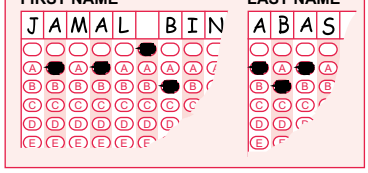
EXAMPLE 1: Debbie Bach



EXAMPLE 2: Chan Ai Beng



EXAMPLE 3: Jamal bin Abas



FIRST NAME to appear on certificate

LAST NAME to appear on certificate

Are you male or female? ○ Male ○ Female

Does anyone in your home usually speak a language other than English? ○ Yes ○ No

School name: _____

_____

Town / suburb: _____

Today's date: ____ / ____ / ____ **Postcode:** _____

DATE OF BIRTH

Day Month Year

STUDENT ID (optional)

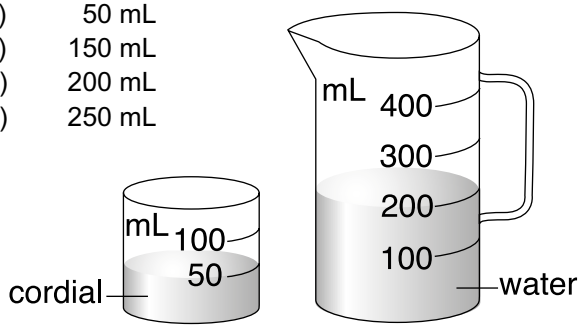
CLASS (optional)

TO ANSWER THE QUESTIONS

Example:

Ari added cordial to water to make a jug of drink. What will be the volume of the drink in the jug?

(A) 50 mL
(B) 150 mL
(C) 200 mL
(D) 250 mL



The answer is 250 mL, so you would fill in the oval (D), as shown.

(A) (B) (C) ●

USE A PENCIL
DO NOT USE A COLOURED PENCIL OR PEN

START

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

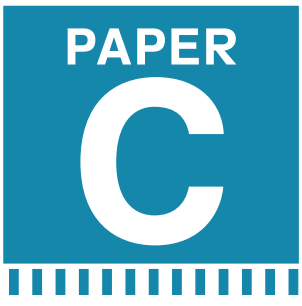
QUESTION	KEY	KEY REASONING	LEVEL OF DIFFICULTY
1	C	The question only refers to the honey bee not any of the others, thus we only look at the honey bee (blue) column (bar) graph. From the graph, the highest honey bee column (bar) is for the white trap.	Easy
2	C	The length of the magnified ant's body is about 12 mm while its actual length is about 6 mm. This makes the magnified ant $\left(\frac{12}{6} = 2\right)$ twice as large. (Note that when printing out these questions, some printers may distort the size of the image.)	Medium
3	D	The question only refers to high temperatures. The oil with the greatest viscosity is needed as this type of oil will best stick to the engine parts at high temperatures. The oil with the greatest viscosity is the one in which the ball travels the smallest distance in the same time i.e. the ball drops through it the slowest.	Medium/Hard
4	D	What was different between Jan's and Matt's brick? The percentage of sand was the same and so was the size of the brick, so A is wrong. Each student used the same amount of water, so B is wrong. The sizes of the bricks were the same, so C is wrong. The correct answer is D as it is the only thing Matt and Jan did differently. If, over the course of 10 days, Matt turns over the brick at 7 am and again 12 hours later at 7 pm, only one side of the brick would face the Sun.	Medium
5	A	The drying time of Mary's brick is the same as all the others, so B is wrong. The straw length of her brick is the same as Matt's, so C is wrong. Her brick composition is the same as John's so D is wrong. Only the width of her brick is different (50 x 30 x 15).	Medium/Hard

LEGEND

Level of difficulty refers to the expected level of difficulty for the question.

Easy	more than 70% of candidates will choose the correct option.
Medium	about 50–70% of candidates will choose the correct option.
Medium/Hard	about 30–50% of candidates will choose the correct option.
Hard	less than 30% of candidates will choose the correct option.

THE FOLLOWING YEAR LEVELS SHOULD SIT THIS PAPER	
Australia[1]	Year 5
Brunei	Primary 5
Egypt	Year 5
Hong Kong	Primary 5
Indian Subcontinent[2]	Class 5
Indonesia	Year 6
Malaysia	Standard 5
Middle East[3]	Class 5
New Zealand/ Pacific[4]	Year 6
Singapore	Primary 4
Southern Africa[5]	Grade 5



1 All international schools registered with UNSW Global (which have an 8-digit school code starting with 46) should sit the papers according to the Australian year levels.
2 Indian Subcontinent Region: India, Sri Lanka, Nepal, Bhutan and Bangladesh.
3 Middle East Region: United Arab Emirates, Qatar, Kuwait, Saudi Arabia, Bahrain, Oman, Turkey, Lebanon, Tunisia, Morocco, Libya, Algeria, Jordan and Pakistan.
4 Pacific Region: Vanuatu, Papua New Guinea and Fiji.
5 Southern Africa Region: South Africa, Botswana, Lesotho, Swaziland, Zimbabwe and Namibia.

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