

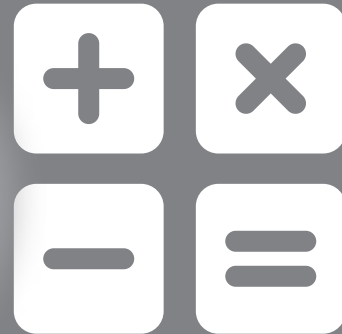


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PAPER
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Practice
Questions



ICAS International
Competitions
and Assessments
for Schools

DO NOT OPEN THIS BOOKLET UNTIL INSTRUCTED.

STUDENT'S NAME:

Read the instructions on the **ANSWER SHEET** and fill in your **NAME, SCHOOL** and **OTHER INFORMATION**.

Use a 2B or B pencil.

Do **NOT** use a pen.

Rub out any mistakes completely.

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

MATHEMATICS

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

Your score will be the number of correct answers.

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

MULTIPLE-CHOICE QUESTIONS:

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.

FREE-RESPONSE QUESTIONS:

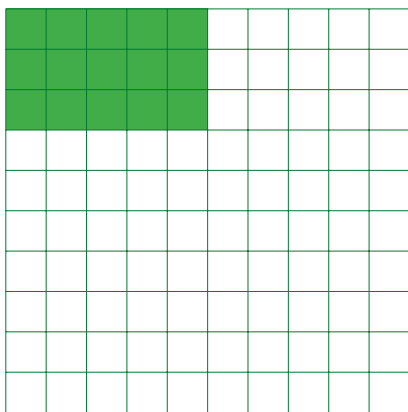
Write your answer in the boxes provided on the **ANSWER SHEET** and fill in the oval that matches your answer

Educational
Assessment

You may use a ruler and spare paper.

You are **NOT** allowed to use a calculator.

1. Maree shaded some squares on a grid.



How many more squares would Maree need to shade so that half of this grid was shaded?

- (A) 15
- (B) 30
- (C) 35
- (D) 50

3. Laura has a lunch break from 12:00 am to 1:20 pm.



How long is Laura's lunch break?

- (A) half an hour
- (B) one hour and twenty minutes
- (C) one and a half hours
- (D) two and a half hours

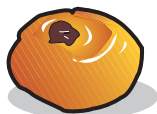
2. Sarah has \$5 to spend on lunch.



orange juice
\$1.50



salad sandwich
\$2.50



bun
\$2.00



apple
65c

If she buys one salad sandwich, which other two things could she buy?

- (A) one orange juice and one apple
- (B) one orange juice and one bun
- (C) two orange juices
- (D) one apple and one bun

4. What is the missing number in this number pattern?

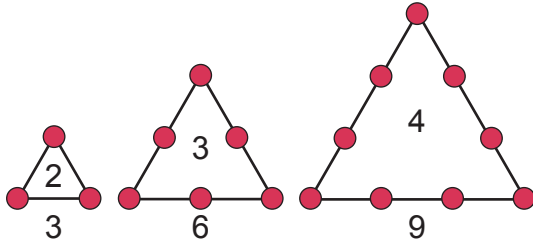


- (A) 24
- (B) 25
- (C) 34
- (D) 35

QUESTION 5 IS FREE RESPONSE.

Write your answer in the boxes provided on the ANSWER SHEET and fill in the ovals that match your answer.

5. Here is the start of a pattern.



The number below each triangle gives the total number of dots on the triangle.

The number inside the triangle gives the number of dots on each side of the triangle.

When the total number of dots on a triangle in this pattern is 72, how many dots are there on each of its sides?

Acknowledgment

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The following year levels should sit THIS Paper:

| | |
|---------------------|------------|
| Australia | Year 6 |
| Brunei | Primary 6 |
| Hong Kong | Primary 6 |
| Indonesia | Year 7 |
| Malaysia | Standard 6 |
| New Zealand | Year 7 |
| Pacific | Year 6 |
| Singapore | Primary 5 |
| South Africa | Grade 6 |



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TO ANSWER THE QUESTIONS

MULTIPLE CHOICE

Example: $6 + 4 =$

- (A) 2
- (B) 9
- (C) 10
- (D) 24

START

The answer is 10, so fill in the oval ☒ C, as shown.

☐ A ☐ B ☒ C ☐ D



FREE RESPONSE

Example: $6 + 6 =$

- The answer is 12, so WRITE your answer in the boxes.
- Write only ONE digit in each box, as shown, and fill in the correct oval, as shown.

| | | |
|-------------------------|------------------------------------|------------------------------------|
| | 1 | 2 |
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| <input type="radio"/> 1 | <input checked="" type="radio"/> 1 | <input type="radio"/> 1 |
| <input type="radio"/> 2 | <input type="radio"/> 2 | <input checked="" type="radio"/> 2 |
| <input type="radio"/> 3 | <input type="radio"/> 3 | <input type="radio"/> 3 |
| <input type="radio"/> 4 | <input type="radio"/> 4 | <input type="radio"/> 4 |
| <input type="radio"/> 5 | <input type="radio"/> 5 | <input type="radio"/> 5 |
| <input type="radio"/> 6 | <input type="radio"/> 6 | <input type="radio"/> 6 |
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| <input type="radio"/> 9 | <input type="radio"/> 9 | <input type="radio"/> 9 |

1

☐ A ☐ B ☐ C ☐ D

2

☐ A ☐ B ☐ C ☐ D

3

☐ A ☐ B ☐ C ☐ D

4

☐ A ☐ B ☐ C ☐ D

5

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| <input type="radio"/> 1 | <input type="radio"/> 1 | <input type="radio"/> 1 |
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| <input type="radio"/> 3 | <input type="radio"/> 3 | <input type="radio"/> 3 |
| <input type="radio"/> 4 | <input type="radio"/> 4 | <input type="radio"/> 4 |
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| <input type="radio"/> 6 | <input type="radio"/> 6 | <input type="radio"/> 6 |
| <input type="radio"/> 7 | <input type="radio"/> 7 | <input type="radio"/> 7 |
| <input type="radio"/> 8 | <input type="radio"/> 8 | <input type="radio"/> 8 |
| <input type="radio"/> 9 | <input type="radio"/> 9 | <input type="radio"/> 9 |

| QUESTION | KEY | SOLUTION | STRAND | LEVEL OF DIFFICULTY |
|----------|-----|--|-----------------------|---------------------|
| 1 | C | There are $10 \times 10 = 100$ squares. Half of 100 is 50. Maree has already shaded 15 so she needs to shade 35 squares more ($50 - 15 = 35$). | Number and Arithmetic | Easy |
| 2 | A | \$5 (lunch money) - \$2.50 (sandwich) = \$2.50 remaining \$1.50 (juice) + \$0.65 (apple) = \$2.15, so there is \$0.35 change All other options require more than the initial \$5 lunch money. | Number and Arithmetic | Easy |
| 3 | C | From 11:50 am to 1:50 pm is one and a half hours. From 11:50 am to 12:50 pm there is one hour, then from 12:50 pm to 1 pm there are 10 minutes and from 1 pm to 1:20 pm there are 20 minutes. Altogether it is 1 hour and 30 minutes (1 hour + 10 minutes + 20 minutes). | Measurement | Easy |
| 4 | B | The triangles contain a number which is the sum of the numbers in the two preceding triangles. $2 + 7 = 9$ and $7 + 9 = 16$. The missing number is $9 + 16 = 25$. | Algebra and Patterns | Medium |
| 5 | 25 | To solve this, find the pattern then test it on the examples given. Number of dots on each side = total number of dots $\div 3 + 1$ $= 72 \div 3 + 1$ $= 25$ | Algebra and Pattern | Hard |

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

