

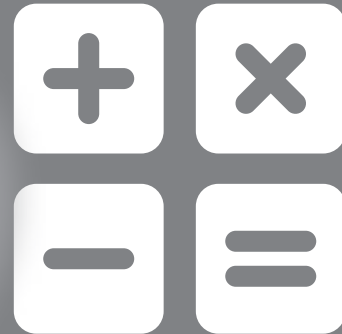


UNSW  
THE UNIVERSITY OF NEW SOUTH  
SYDNEY • AUSTRALIA

StudentBounty.com

PAPER  
E

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

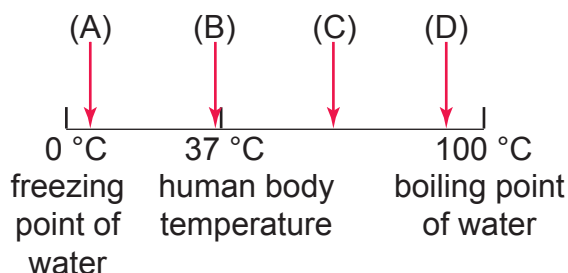
Educational  
Assessment

You may use a ruler and spare paper.

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

1. Below is a temperature scale ranging from  $0^{\circ}\text{C}$  to  $100^{\circ}\text{C}$ .

Which point on the scale would be closest to the temperature of an ice-cream?



4. Blake made up the following

|   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| ↖ | ○ | └ | ┐ | ┌ | ＝ | □ | ↘ | ↙ | ↗ |

To read his coded numbers you start at the top left corner and read each line from left to right.

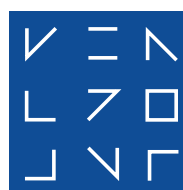
Which of the following codes correctly shows the number 957 286 304?



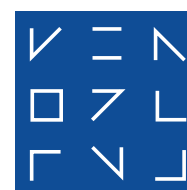
(A)



(B)



(C)



(D)

2.  $5 \times 50 = ?$

- (A) 2500  
(B) 1000  
(C) 250  
(D) 100

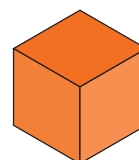
3. Which one of the following numbers is *four hundred thousand, six hundred and two*?

- (A) 400 062  
(B) 400 602  
(C) 406 002  
(D) 406 602

#### 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. A cube has a volume of  $343\text{ cm}^3$ .



What is the **sum** of the lengths of the edges of the cube, in cm ?

This page may be used for working.

## Acknowledgment

Copyright in this booklet is owned by Educational Assessment Australia, UNSW Global Pty Limited, unless otherwise indicated. Every effort has been made to trace and acknowledge copyright. Educational Assessment Australia apologises for any accidental infringement and welcomes information to redress the situation.

### The following year levels should sit THIS Paper:

|              |           |
|--------------|-----------|
| Australia    | Year 7    |
| Brunei       | Form 1    |
| Hong Kong    | Form 1    |
| Indonesia    | Year 8    |
| Malaysia     | Form 1    |
| New Zealand  | Year 8    |
| Pacific      | Year 7    |
| Singapore    | Primary 6 |
| South Africa | Grade 7   |



**UNSW Global**  
THE UNIVERSITY OF NEW SOUTH WALES  
SYDNEY • AUSTRALIA

**Educational  
Assessment  
Australia**  
eaa.unsw.edu.au

© 2012 Educational Assessment Australia. EAA is an education group of UNSW Global Pty Limited, a not-for-profit provider of education, training and consulting services and a wholly owned enterprise of the University of New South Wales. ABN 62 086 418 582



- Rub out all mistakes completely.
- Print your details clearly in the boxes provided.
- Make sure you fill in only one oval in each column.

**FIRST NAME**

|     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|
| D   | E   | B   | B   | I   | E   |
| ○   | ○   | ○   | ○   | ○   | ○   |
| (A) | (A) | (A) | (A) | (A) | (A) |
| (B) | (B) | ●   | ●   | (B) | (F) |
| (C) | (C) | (C) | (C) | (C) | (C) |
| (D) | (D) | (D) | (D) | (D) | (D) |

**LAST NAME**

|     |     |     |     |
|-----|-----|-----|-----|
| B   | A   | C   | H   |
| ○   | ○   | ○   | ○   |
| (A) | ●   | (A) | (A) |
| ●   | (B) | (B) | (F) |
| (C) | (C) | ●   | (C) |
| (D) | (D) | (D) | (D) |

| FIRST NAME                                                                              | LAST NAME                                                                                                               |
|-----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| C H A N                                                                                 | A I B E N G                                                                                                             |
| <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>                                 |
| <input type="radio"/> A <input type="radio"/> <input type="radio"/> A                   | <input type="radio"/> <input type="radio"/> A <input type="radio"/> A <input type="radio"/> A <input type="radio"/> A   |
| <input type="radio"/> B <input type="radio"/> B <input type="radio"/> B                 | <input type="radio"/> B <input type="radio"/> B <input type="radio"/> B <input type="radio"/> B <input type="radio"/> B |
| <input type="radio"/> <input type="radio"/> C <input type="radio"/> C                   | <input type="radio"/> C <input type="radio"/> C <input type="radio"/> C <input type="radio"/> C                         |
| <input type="radio"/> D <input type="radio"/> D                                         | <input type="radio"/> D <input type="radio"/> D <input type="radio"/> D                                                 |

| FIRST NAME              |                         |                         |                         |                         |                         |                         |                         |                         |                         | LAST NAME               |                         |                         |                         |
|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| J                       | A                       | M                       | A                       | L                       |                         |                         | B                       | I                       | N                       | A                       | B                       | A                       | S                       |
| <input type="radio"/>   | <input type="radio"/>   | <input type="radio"/>   | <input type="radio"/>   | <input type="radio"/>   | <input type="radio"/>   | <input type="radio"/>   | <input type="radio"/>   | <input type="radio"/>   | <input type="radio"/>   | <input type="radio"/>   | <input type="radio"/>   | <input type="radio"/>   | <input type="radio"/>   |
| <input type="radio"/> A | <input type="radio"/>   | <input type="radio"/> A | <input type="radio"/>   | <input type="radio"/> A | <input type="radio"/> A | <input type="radio"/> A | <input type="radio"/> A | <input type="radio"/> A | <input type="radio"/> A | <input type="radio"/>   | <input type="radio"/> A | <input type="radio"/>   | <input type="radio"/> A |
| <input type="radio"/> B | <input type="radio"/> B | <input type="radio"/> B | <input type="radio"/> B | <input type="radio"/> B | <input type="radio"/> B | <input type="radio"/>   | <input type="radio"/> B | <input type="radio"/>   | <input type="radio"/>   | <input type="radio"/> B | <input type="radio"/>   | <input type="radio"/> B | <input type="radio"/> B |
| <input type="radio"/> C | <input type="radio"/> C | <input type="radio"/> C | <input type="radio"/> C | <input type="radio"/> C | <input type="radio"/> C | <input type="radio"/>   | <input type="radio"/> C | <input type="radio"/>   | <input type="radio"/>   | <input type="radio"/> C | <input type="radio"/>   | <input type="radio"/> C | <input type="radio"/> C |
| <input type="radio"/> D | <input type="radio"/> D | <input type="radio"/> D | <input type="radio"/> D | <input type="radio"/> D | <input type="radio"/> D | <input type="radio"/>   | <input type="radio"/> D | <input type="radio"/>   | <input type="radio"/>   | <input type="radio"/> D | <input type="radio"/>   | <input type="radio"/> D | <input type="radio"/> D |

[illegible][illegible]

☐ Male ☐ Female



☐ Yes ☐ No

— — — — —

| Day |   | Month |   | Year |   |
|-----|---|-------|---|------|---|
|     |   |       |   |      |   |
| 0   | 0 | 0     | 0 | 0    | 0 |
| 1   | 1 | 1     | 1 | 1    | 1 |
| 2   | 2 |       | 2 | 2    | 2 |
| 3   | 3 |       | 3 | 3    | 3 |
|     | 4 |       | 4 | 4    | 4 |
|     | 5 |       | 5 | 5    | 5 |
|     | 6 |       | 6 | 6    | 6 |

|     |     |
|-----|-----|
|     |     |
| (A) | (K) |
| (B) | (L) |
| (C) | (M) |
| (D) | (N) |
| (E) | (O) |
| (F) | (P) |
| (G) | (Q) |

# 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 ☒, 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                                  |
| <input type="radio"/> 0 | <input type="radio"/> 0            | <input type="radio"/> 0            |
| <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            |
| <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            |

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

1 ☐ (A) ☐ (B) ☐ (C) ☐ (D)

2 ☐ (A) ☐ (B) ☐ (C) ☐ (D)

3 ☐ (A) ☐ (B) ☐ (C) ☐ (D)

4 ☐ (A) ☐ (B) ☐ (C) ☐ (D)

5

|                         |                         |                         |
|-------------------------|-------------------------|-------------------------|
|                         |                         |                         |
| <input type="radio"/> 0 | <input type="radio"/> 0 | <input type="radio"/> 0 |
| <input type="radio"/> 1 | <input type="radio"/> 1 | <input type="radio"/> 1 |
| <input type="radio"/> 2 | <input type="radio"/> 2 | <input 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 |
| <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        | A   | The temperature of an ice-cream is very close to the freezing point of water ( $0^{\circ}\text{C}$ ). Noticing the given scale, the closest point to $0^{\circ}\text{C}$ is option A. | Measurement           | Easy                |
| 2        | C   | Multiplying 5 by 50 gives 250.                                                                                                                                                        | Number and Arithmetic | Easy                |
| 3        | B   | This number should have 6 digits. If we write it using expanded notation, we should have $400\,000 + 600 + 2$ . In other words, it is 400 602.                                        | Number and Arithmetic | Easy                |
| 4        | C   | Reading the code from left to right from the upper left corner and using the key provided, option C is the only code that shows correctly all digits of the given number.             | Number and Arithmetic | Easy                |
| 5        | 84  | If a cube has a volume of $343\text{ cm}^3$ then its edge length is 7 cm. There are 12 edges on a cube, so the total length of the edges is $7 \times 12 = 84\text{ cm}$              | Measurement           | 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

