

**AUSTRALIAN MATHEMATICS COMPETITION  
WARM-UP PAPER  
MIDDLE PRIMARY 1**

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1. The grid below gives the position of different shapes. For example, the  $\diamond$  is at B4.

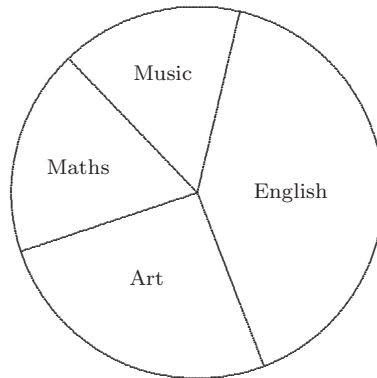
|   | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| A |   |   |   |   |
| B |   |   |   |   |
| C |   |   |   |   |
| D |   |   |   |   |

On which square is the  $\star$  ?

- (A) A3                      (B) C3                      (C) D4                      (D) B4                      (E) C2
2. Olivia is 2 years old. Her brother, Matthew, is 5 years older than her. How old is Matthew?
- (A) 2                      (B) 3                      (C) 5                      (D) 7                      (E) 10
3. Jason has to finish his homework before he can watch 'Blastoids' on TV at 4:35 pm. It takes him 17 minutes to do his homework. What is the latest time he can start his homework and still finish in time to watch 'Blastoids'?
- (A) 4:52 pm              (B) 4:20 pm              (C) 4:18 pm              (D) 4:28 pm              (E) 4:08 pm

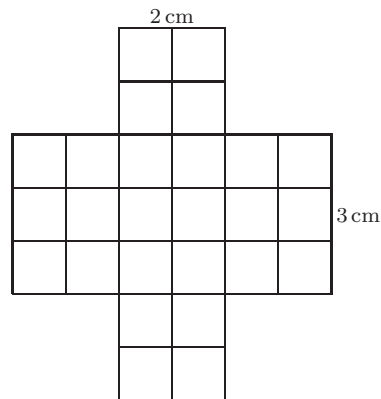
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4. Last Tuesday, a class studied Maths, Music, English and Art in the proportions indicated in the pie chart.



Which of the following statements is true?

- (A) They spent more time on Music than they did on Art.
  - (B) They spent more time on Music than they did on English.
  - (C) They spent more than half the time on Music and English.
  - (D) They spent more than half the time on Maths and Art.
  - (E) They spent the same amount of time on Maths as they did at Art.
5. The diagram shows a net for an open-top box.



It is to be filled with 1 cm cubes. How many cubes will the box hold?

- (A) 6                      (B) 13                      (C) 9                      (D) 7                      (E) 12

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6. The game of *Four Tofu* is played on a  $4 \times 4$  grid.

|   |   |   |   |
|---|---|---|---|
|   | 2 |   |   |
|   |   |   | 1 |
|   | 1 | 3 |   |
| 4 |   |   |   |

When completed, each of the numbers 1, 2, 3 and 4 occurs in each row and column of the  $4 \times 4$  grid and also in each  $2 \times 2$  corner of the grid. When the grid shown is completed, the sum of the four numbers in the corners of the  $4 \times 4$  grid is

- (A) 13                      (B) 11                      (C) 15                      (D) 12                      (E) 10
7. Alice and Kate collect some seashells. Together they have 30 seashells. Which could **NOT** be true?
- (A) Alice has 12 seashells.  
(B) Kate has twice as many seashells as Alice.  
(C) Kate has one more seashell than Alice.  
(D) Alice has two more seashells than Kate.  
(E) Alice and Kate have the same number of seashells.
8. How many three-digit numbers greater than 900 are there that satisfy the following conditions?
- The sum of the digits is 14.
  - The digits are all different.
  - The tens digit is an odd number.
- (A) 2                      (B) 3                      (C) 4                      (D) 5                      (E) 6
9. Each of Andrew, Bill, Clair, Daniel and Eva either always lies or is always truthful, and they know who each of them is.
- Andrew says that Bill is a liar.  
Bill says that Clair is a liar.  
Clair says that Daniel is a liar.  
Daniel says that Eva is a liar.
- What is the largest possible number of liars in the group?
10. I am thinking of a number. It has three digits and is between 110 and 130. The sum of the digits is 9 and the number is even. What is this number?