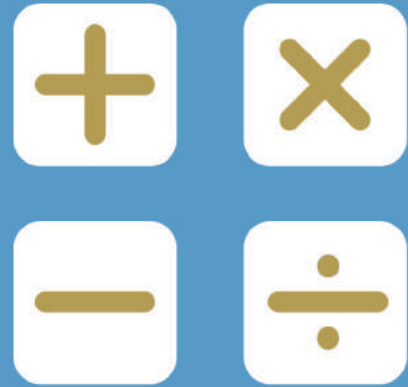


PAPER B



SEAMO

Southeast Asian
Mathematical
Olympiads

SAMPLE

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**.

MIDDLE PRIMARY

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

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

SECTION A

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

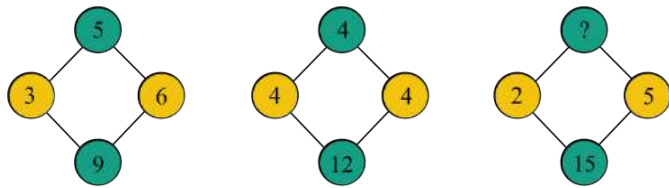
On your **ANSWER SHEET** fill in the oval that matches your answer.

SECTION B

On your **ANSWER SHEET** fill in your answer within the box provided.

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

1. Find the missing number in the number pattern below.



- (A) 10
 (B) 12
 (C) 14
 (D) 16
 (E) 18

2. In a new operation,

$$2 \bullet 4 = 8$$

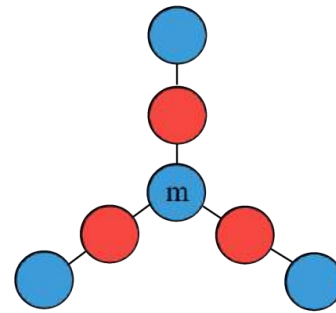
$$4 \bullet 3 = 11$$

$$8 \bullet 7 = 23$$

Find the value of $13 \bullet 9$.

- (A) 35
 (B) 36
 (C) 37
 (D) 38
 (E) 40

3. The numbers 1 to 7 are arranged in the circles in such a way that the sum of the 3 numbers on each line is 14. What is the value of m ?



- (A) 7
 (B) 8
 (C) 9
 (D) 10
 (E) None of the above

4. The distance between Jakarta and Bandung is 150 km via Jakarta-Cikampek Toll Road. A car departed from Jakarta at a constant speed of 60 km/h towards Bandung at 10:00 AM. Another van departed from Bandung, at a constant speed of 50 km/h towards Jakarta. At what time must the van leave Bandung, such that it meets the car in the middle of the two cities?

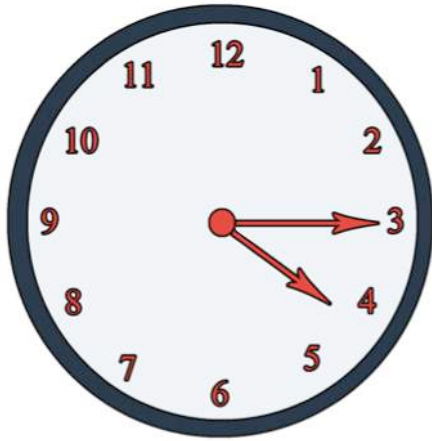


- (A) 09:30 AM
 (B) 09:35 AM
 (C) 09:40 AM
 (D) 09:50 AM
 (E) None of the above

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. What is the smaller angle formed by the hour hand and the minute hand at 1615 h?



END OF PAPER

QUESTION	ANSWER	SOLUTION	TOPIC	DIFFICULTY
1	A	$3 \times 5 = 15$ $9 + 6 = 15$ $4 \times 4 = 16$ $12 + 4 = 16$ $15 + 5 = 20$ $2 \times 10 = 20$	Number Pattern	Easy
2	A	$2 \times 2 + 4 = 8$ $4 \times 2 + 3 = 11$ $8 \times 2 + 7 = 23$ $13 \times 2 + 9 = 35$	Number Puzzle	Medium
3	A	$1 + 2 + 3 + \dots + 7 = \frac{(1 + 7) \times 7}{2}$ $= 28$ $14 \times 3 = 42$ $42 - 28 = 14$ $m = 14 \div 2$ $= 7$	IQ	Easy
4	E	<p>The car took $(150 \div 2) \div 60$ $= 1\frac{1}{4}$ h to reach 75 km.</p> <p>The van took $75 \div 50 = 1\frac{1}{2}$ h</p> <p>The van must leave 15 minutes before the car.</p>	Speed	Medium/Hard

5	37.5°	<p><i>min</i> hand 1 round $\rightarrow 360^\circ$ <i>hour</i> hand 1 round $\rightarrow 360^\circ \div 12 = 30^\circ$</p> <p>The <i>hour</i> hand $\rightarrow 4 \times 30^\circ + \frac{1}{4} \times 30^\circ$ $= 120^\circ + 7.5^\circ$ $= 127.5^\circ$</p> <p>The <i>min</i> hand $\rightarrow 3 \times 30^\circ = 90^\circ$ The angle is $127.5^\circ - 90^\circ = 37.5^\circ$</p>	Logic	Hard
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Level of difficulty refers to the expected level of difficulty for the question.

Easy	more than 75% of candidates will choose the correct option
Medium	about 50–75% of candidates will choose the correct option
Medium/Hard	about 25–50% of candidates will choose the correct option
Hard	less than 25% of candidates will choose the correct option