MALAYSIA ASEAN MATH OLYMPIADS
2014 CONTEST

MASMO

Full Name:

Year:

Date:

Time:

School Name:

School Code:

Rules and Regulations
(Please read these rules and regulation carefully)

1. Please fill in your **FULL name** correctly, school name, school code and the date and time of contest clearly in the spaces above. Those who do not fill in the required particulars will be disqualified automatically.

2. Do not open the question booklet until you are told to do so. You may only use **2B** pencil when answering the questions.

3. No calculators and any unauthorised electronic devices (including mobile phones) are allowed during the contest.

4. Strict silence must be observed at all times in the examination hall and please be reminded that you **MAY NOT** leave your seat without permission.

5. If you have any request or enquiry, please raise your hand and wait for an invigilator.

6. Only one candidate is allowed to leave the hall at a time. You are required to return to the hall within 10 minutes or else you will automatically be disqualified from the contest.

7. Each question in the contest have been verified by experienced trainers, thus no further explanation will be given.

8. The time allowed for the paper is **90 minutes**. You must stop writing when you are told to do so.

9. You **MUST** fill in your answer in the answer sheet provided in second page of the question booklet. You will not be awarded marks for any answer written in the question booklet.

10. Please be reminded that this is a contest and not an examination, try your level best to answer all questions within the prescribed time.

11. **Please tear off the answer sheet carefully and returned to invigilator along with contest paper. Participant only can bring back the contest papers on next week.**

Scoring System
1. The correct answer to each problem will be awarded one (1) point. However, you will NOT be penalised for each incorrect answer.

2. The organizer reserves the right to disqualified the event of malpractice to differentiate between those outstanding students.

3. Contestants or a team who are disqualified from the contest will be forfeited any right to re-sit this year.

1	6	11	16
2	7	12	17
3	8	13	18
4	9	14	19
5	10	15	20

1

$$\text{🌙} + \text{☀} = 12$$

$$\text{🌙} + \text{🌙} + \text{☀} + \text{☀} + \text{☀} = 31$$

What number does "Moon picture" and "Sun picture" represent?

(A) 5, 6   (B) 4, 8   (C) 6, 6   (D) 9, 3   (E) None of the above

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2   A number plus 2, minus by 3, multiplied by 4, and then divided by 5, the result is equal to 12, what is the number?

(A) 19   (B) 18   (C) 17   (D) 16   (E) None of the above

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3   Aaron plucked half of the total mangoes on a tree. He plucked 2 more mangoes before leaving his house. When he went back, he plucked the remaining 7 mangoes on the same tree. How many mangoes had Aaron plucked?
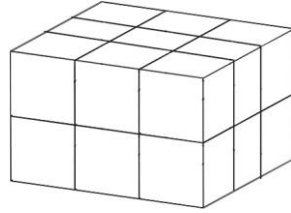
(A) 20   (B) 19   (C) 18   (D) 17   (E) None of the above

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4   Jason took part in a marching competition. When he was marching, he found that he was 7th from left side, 2nd from right side, 3rd from front and 4th from back in his team. Find the total number of people in Jason's team.

(A) 10   (B) 34   (C) 36   (D) 42   (E) None of the above

5

The surfaces of a large rectangular are painted in red, then cut into 18 small boxes as shown above. In these small boxes, please identify the number of boxes that have 2 sides painted.

(A) 3   (B) 5   (C) 7   (D) 8   (E) 9

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6 The total weight of Alvin and John is 150kg. Alvin is 8kg heavier than John. What is the weight for Alvin and John respectively?

   (A) 80, 70
   (B) 79, 71
   (C) 78, 72
   (D) 77, 73
   (E) None of the above

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7 12345,23451,34512,45123..........

   What is the 10th group in the sequence above?

   (A) 34512   (B) 45123   (C) 51234   (D) 23451   (E) 12345

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8 Alvin is 10 years old, his father is 40 years old. What is the age of Alvin when his father's age is exactly 2 times of his age?

   (A) 20   (B) 25   (C) 30   (D) 35   (E) 40

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9 There are 30 questions in an exam paper. Each question answered correctly will get 2 marks, 1 mark will be deduct for a wrong answer and no mark will be given for an unanswered question. Alvin and John score the same marks. Alvin answered 20 questions correctly, 6 wrongly and did not answer 4 questions. John answered 21 questions correctly. How many questions John didn't answer?

(A) 0   (B) 1   (C) 8   (D) 9   (E) None of the above

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10 $\square\square\square\square\square$ + ☆☆☆☆ = 50

$\square$ + ☆ = 11

What is the value represented by $\square$?

(A) 3   (B) 4   (C) 5   (D) 6   (E) 8

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11 A long ruler costs RM7 and a pencil box costs RM11. A teacher spent RM101 to buy some rulers and pencil boxes. How many rulers and pencil boxes that he bought?

(A) 4, 7   (B) 4, 6   (C) 5, 7   (D) 5, 6   (E) None of the above

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12

		8
	6	
4		▓

3	7	
	5	
▓		

By reusing the 3 numbers in each diagram, fill in the blank boxes such that each row, column and diagonal having a same total. (Note that each number can only be used 3 times in its respective diagram). Find the product of the numbers in the shaded boxes.

(A) 20   (B) 30   (C) 40   (D) 56   (E) None of the above

13 In a rose garden, a rose grows on the first day, 2 roses grow on the second day, 4 roses grow on the third day... and so on. On the 30th day, the entire rose garden is covered with roses. It took how many days for half of the rose garden to be covered with roses?

(A) 15   (B) 18   (C) 25   (D) 28   (E) 29

14 A new bottle of juice can be exchanged with three empty juice bottles. Alvin and his friend bought 5 bottles of juice and exchange for new juices with the bottles that they drank. How many bottles of juice had they drank?

(A) 5   (B) 6   (C) 7   (D) 8   (E) 9

15 How many group of 3 different natural numbers where their sum is equal to 10? (Example: 2+3+5=10)

(A) 5   (B) 6   (C) 7   (D) 8   (E) 9

16 Christy goes to stationery shop to buy erasers and pencils. RM19 enough to buy 6 pencils and 11 erasers. If RM4 for 3 pencils, how much does an eraser cost?

(A) RM1   (B) RM2   (C) RM3   (D) RM4   (E) RM5

17 Jazz, Adrian and Andrew went fishing at the riverside. They caught a total of 90 fishes. The number of fishes caught by Jazz was 3 times of Andrew's. The number of fishes caught by Andrew was twice the number of Adrian's. How many fishes caught by Adrian?

(A) 10   (B) 20   (C) 40   (D) 60   (E) 50

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18 During a show, John distributed 100 cards which were numbered with 1, 2, 3,…, 100 to the children. In the final lucky draw, children with the number containing digit 3 won the prizes. So how many kids won?

(A) 9   (B) 19   (C) 29   (D) 39   (E) 49

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19 Wendy is enjoying her one week school holiday (Monday to Sunday). She would like to go for 2 swimming classes this week, but her mother does not allow her to go for 2 consecutive days. How many arrangements can be made in order for her to go for 2 swimming classes?

(A) 5   (B) 10   (C) 15   (D) 20   (E) 25

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20 An airplane has travelled for 108km in 4 hours. How many total hours are needed if the plane continues to fly for another 270 km at the same speed?

(A) 14   (B) 15   (C) 16   (D) 17   (E) None of the above