Division P Year 5	MALAYSIA ASEAN MATH OLYMPIADS 2014 CONTEST	

Full Name:	**Year:**
IC Number:	**Date:** **Time:**
School Name:	**School Code:**

Rules and Regulations

(Please read these rules and regulation carefully)

1. Please fill in your **FULL name** correctly, IC number, 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.

Division P Year 5	2014 ANSWER SHEET	

1	6	11	16	21
2	7	12	17	22
3	8	13	18	23
4	9	14	19	24
5	10	15	20	25

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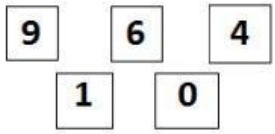
1 What is the smallest 5-digit number that can be formed using these numbers?



2 In this equation below,

$$36 \times 36 = 9 \times 12 \times A$$

What is the value of A?

3 Henry rolled three regular 6-sided dice. The sum of the three numbers rolled is 13. What is the maximum possible product of such three numbers?

4 What is the largest three-digit number, which leaves a remainder 1 when divided by 3 and remainder 1 when divided by 5?

5 What number does B represents in the following equation?

$$3B5 + 439 = 814$$

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6 $2014\frac{2}{5}\times 37+\frac{7}{50}\times 370+81.4=?$

7 What is the sum of the largest two-digit prime number and second largest two-digit prime number?

8 Leon was given a chocolate bar by his sister. The chocolate bar is made up of square pieces with 7 squares width and 9 squares length. Leon ate all of the outermost squares. What is the fraction of the chocolate bar left?

9 In a group of horses and chickens, there are 25 heads and 84 legs. How many horses are there?

10 How many two-digit numbers that have their digits differ by two?

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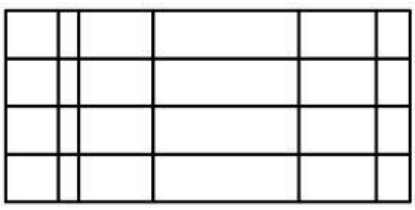
11 Given three one-digit numbers, namely A, B and C. These three numbers can be used to make six 3-digit numbers and three of them are square numbers. What is A + B + C?

12 A snail was at a bottom of a 30-cm pole. During the day, the snail will climb up 5 cm in height. Then during the night, it will slide down for 3 cm. The process repeats every day. How many days will it takes until the snail arrive to the top of the pole?

13 10 workers can produce 60 toys in 40 hours. 5 workers can produce 120 toys in how many hours?

14 Albert is the 49^{th} fastest and the 49^{th} slowest runner in Kuala Lumpur district. Assuming no two runners are the same speed, how many runners are there in Kuala Lumpur district?

15 How many rectangles are shown in the diagram below?



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16 Suppose Zack has 20 blue socks and 20 green socks in a drawer. Zack just randomly select a number of socks without looking. What is the smallest amount of socks he must take out to make sure that he has a pair of socks of the same color?

17 What day comes after the day before yesterday if three days from now will be Saturday?

18 Given a sequence of number

3, 1, 2, 4, 3, 1, 2, 4, ...

Find the sum of the first 83 numbers.

19 Suppose there is a 12-hour digital clock which only show times when the number representing the minute is double of the number representing the hour. That is, the clock can ONLY show times like 5:10, 6:12, 7:14 and so on. What is the smallest time gap between the times shown by the clock?

20 If a*b = (a x b) – (a + b), find (3*4)*(2*4).

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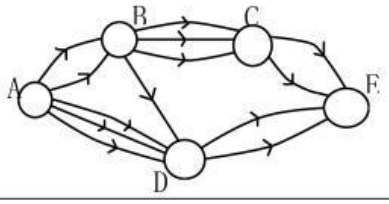
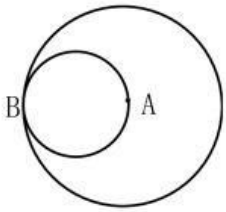
21 Amy wants to travel to town E, and she is currently in Town A. All routes, as shown in the figure, can only be travelled in one direction. How many different ways are there for Amy to arrive in Town E?



22 In the figure below, Point A is the center of the bigger circle. How much bigger is the area of the larger circle compared to the area of the smaller circle?



23 If the 5-digit number 4321N is divisible by 15, what is N?

24 The average mark for 30 students is 85. Michelle's mark was removed from the average and the new average is 83. What is Michelle's mark?

25 Rectangle PQRS is made of 9 smaller rectangles. Some of the perimeters of the smaller rectangle are: A: is 30 cm; B: 25 cm; C:15 cm; D: 10 cm; E: 20 cm. Find the perimeter of the rectangle PQRS.