

*Division*

**P**

Year 5

# ASIAN MATHS OLYMPIAD 2015 CONTEST



**Full Name:**

**Class:**

**Date:**

**Time:**

**School Name:**

**IC. No:**

## Rules and Regulations

(Please read these rules and regulation carefully)

1. Please fill in your **FULL name** correctly, IC No, school name, class 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, do not expect to answer all types of questions.
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.**
12. **Please be reminded that if the contestants can't attend the contest, we don't accept any replacement contestants. If found any, the contestant will be disqualified automatically.**

### Scoring System

1. For **Question 1- 10, 3 marks** will be awarded for each correct answer.  
For **Question 11- 20, 4 marks** will be awarded for each correct answer.  
For **Question 21- 25, 6 marks** will be awarded for each correct answer.  
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.



<i>Division</i> <b>P</b> Year 5	<b>2015</b> <b>ANSWER SHEET</b>	
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<b>1</b>		<b>6</b>		<b>11</b>		<b>16</b>		<b>21</b>	
<b>2</b>		<b>7</b>		<b>12</b>		<b>17</b>		<b>22</b>	
<b>3</b>		<b>8</b>		<b>13</b>		<b>18</b>		<b>23</b>	
<b>4</b>		<b>9</b>		<b>14</b>		<b>19</b>		<b>24</b>	
<b>5</b>		<b>10</b>		<b>15</b>		<b>20</b>		<b>25</b>	



- 1 A number times with 7 and minus 3 equal to 4 times this number plus 6, this number is \_\_\_\_\_.

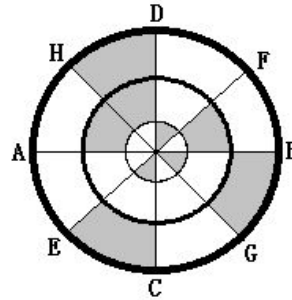
(3 marks)

- 2 A school is organizing a school trip, there are 123 teachers, 723 students, each bus can only carry 45 of them, the school shall at least prepare \_\_\_\_\_ buses.

(3 marks)

- 3 As shown below, 3 concentric circles are divided into 8 equal portions by lines AB, CD, EF and GH. The ratio of area of shaded region to non-shaded region is \_\_\_\_\_.

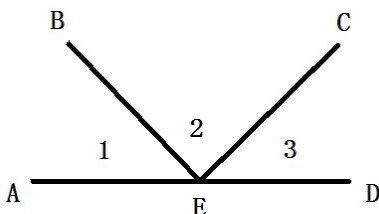
(3 marks)



- 4 Calculate  $2 + 4 + 6 + 8 + \dots + 200 =$  \_\_\_\_\_

(3 marks)

- 5 BE, CE and AD are straight lines.  $\angle 1 = 47^\circ$ ,  $\angle 3 = 56^\circ$ , so  $\angle 2 =$  \_\_\_\_\_



(3 marks)

*Division*

**P**

Year 5

**ASIAN MATHS OLYMPIAD  
2015 CONTEST**



6 Calculate  $111 \div 3 + 222 \div 6 + 333 \div 9 + 444 \div 12 =$  \_\_\_\_\_

(3 marks)

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7 Calculate  $231 \div \frac{231231}{232} =$  \_\_\_\_\_

(3 marks)

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8 This year, George is 5 years old; his dad is 35 years old. After how many years, his dad is 4 times older than George?

(3 marks)

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9 1<sup>st</sup> of July 2014 is Tuesday, what day is 30<sup>th</sup> July 2014?

(3 marks)

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10 There are a total of 28 roosters and rabbits in a cage. there are 80 legs altogether, calculate the total numbers of roosters.

(3 marks)

*Division*

**P**

Year 5

**ASIAN MATHS OLYMPIAD  
2015 CONTEST**



11 Calculate  $9999 \times 0.7 + 1111 \times 2.7 =$  \_\_\_\_\_

(4 marks)

- 12 5 kids (A, B, C, D and E) are playing games in the playground. In each round, they follow the rules below to pass on the toy on their hands to the next kid:  $A \rightarrow C$ ,  $B \rightarrow E$ ,  $C \rightarrow A$ ,  $D \rightarrow B$ ,  $E \rightarrow D$ . Initially, A and B are holding the car toy each while C, D and E holding motorcycle toy each. After five rounds, the kids with car toy are \_\_\_\_ and \_\_\_\_.

(4 marks)

13 Calculate  $13.8 \times 4.6 \times 5.4 \div 1.38 \div 2.3 \div 2.7 =$  \_\_\_\_\_

(4 marks)

- 14 One is putting ping pong balls into 11 boxes. In each of the boxes, number of ping pong balls shall not be less than 10, not equal to 13 and is not multiple of 5. If the number of ping pong balls is different in each box, one needs at least \_\_\_\_\_ ping pong balls to fill in all the 11 boxes.

(4 marks)

- 15 From point A, a robot walks to the south for 1.2 meter, then walks 1 meter to the east, follow by another 1.8 meter to the south. Then he walks another 2 meters to the east and again 1 meter to the south before reaching point B. What's the straight line distance between point A and B?

(4 marks)

*Division*

**P**

Year 5

**ASIAN MATHS OLYMPIAD  
2015 CONTEST**



- 16 There are a total of 340 durian and rambutan trees in an estate, given that durian trees are 10 less than 4 times rambutan trees, there are \_\_\_\_\_ durian trees in the estate.

(4 marks)

- 17 Teacher gives 2 questions to a class of 50 students. 30 students correctly answer the first question, 25 students correctly answer the second question, 7 wrongly answer both questions; there are \_\_\_\_\_ students correctly answer both questions.

(4 marks)

- 18 There is a number 88888.....8, it's a 50 digits number, divide this number by 7 and the remainder is \_\_\_\_\_.

(4 marks)

- 19 4 days before school reopen, Tom has not started working on holiday's homework but Vera has done 60 of the questions. By the day school reopen, both have done all the homework. Within these 4 days, the number of questions done by Tom is 4 times what Vera did. In average, Tom has done \_\_\_\_\_ questions everyday.

(4 marks)

- 20 40 balls are distributed into 6 different groups, each group with different number of balls. The group with most balls can have up to \_\_\_\_\_ balls.

(4 marks)



21 Calculate :

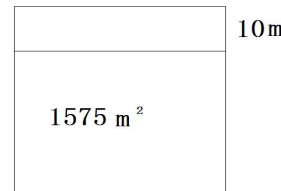
$$(6 \times 4014 + 9 \times 4016 + \frac{1}{2}) \div (3 \times 4014 + 3 \times 6024 + \frac{1}{4}) = \underline{\hspace{2cm}}$$

(6 marks)

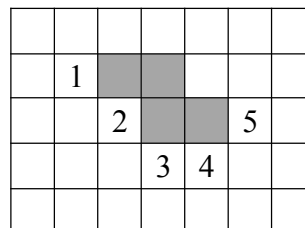
22 If  $\frac{A}{11} < \frac{7}{B} < \frac{4}{5}$  is valid; and A and B are non-zero natural number, find the greatest value of A and the smallest value of B.

(6 marks)

23 Within a square land, Asmo cut out a rectangular land with width of 10 meters (as shown below), the remaining land's area is 1575 square meters. The area of cut out rectangular land is \_\_\_\_\_ square meters. (6 marks)



24 There are 5 squares label as 1, 2, 3, 4, 5 as shown below. By shadowing 2 out of the 5 and joining them together with the existing shadow portions, one can get an expanded cube box. In order to get this expanded cube box, one shall shadow number \_\_\_\_ and \_\_\_\_\_. (6 marks)



25 A, B, C are in a contest. 400 officers are voting to support them and each of them can only cast one vote. If the ballot shows a result ratio of 2:3 for A and B candidates, 9:5 for B and C candidates, how many tickets had each of A, B and C get? A get \_\_\_\_\_, B get \_\_\_\_\_, C get \_\_\_\_\_.

(6 marks)