



**ISMC** International Singapore  
Maths Competition

# INTERNATIONAL SINGAPORE MATHS COMPETITION (Primary 3)

60 minutes

## Instructions to participants

1. Do not open the booklet until you are told to do so.
2. Attempt ALL 25 questions.
3. Write your answers neatly in the Answer Sheet provided.
4. Marks are awarded for correct answers only.
5. All figures are not drawn to scale.
6. Calculators may not be used.

Questions in Section A carry 2 marks each, questions in Section B carry 4 marks each and questions in Section C carry between 6 to 10 marks each.

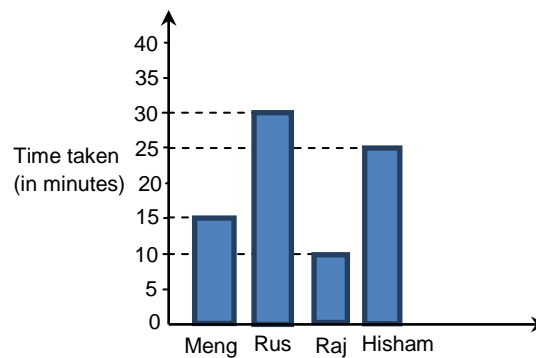
Jointly organised by



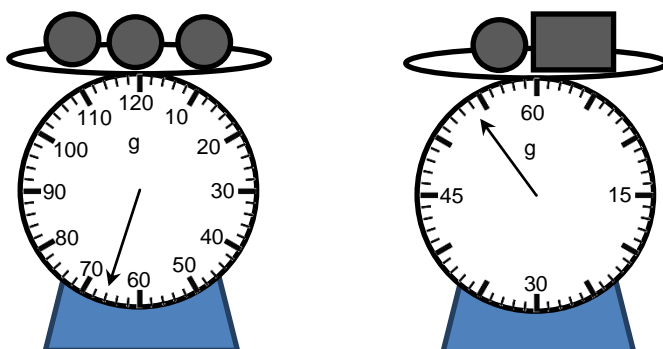
**Section A**

Each of the questions 1 to 10 carries 2 marks.

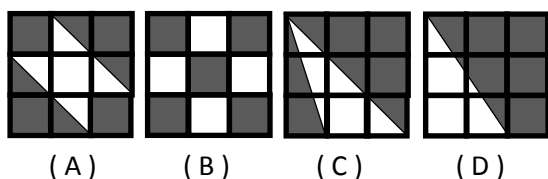
1. The ages of three teenagers are prime numbers. What is the greatest possible age difference of any two of them?
2. I think of two whole numbers. When I multiply each of them by 7, the two products are whole numbers more than 30 but less than 45. What is the product of the two numbers I am thinking of?
3. A fruit seller sells only 3 types of fruit. He sells each papaya for \$3, each watermelon for \$5 and each jackfruit for \$8. He has collected \$22 so far. How many of each fruit has he sold if he has sold at least one of each fruit?
4. The graph below shows the amount of time 4 boys took to complete a piece of art. Who was the last boy to complete the piece of art?



5. Study the diagrams below. 4 identical balls and 1 rectangular block are placed on different weighing scales. What is the mass of the rectangular block?



6. Each of the figures below have parts which are shaded. Which one of them has a different fraction shaded than the rest?



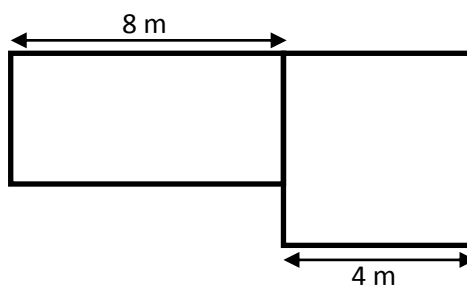
7. Five runners, A, B, C, D and E, took part in a race. A is in the lead and C is in the middle. If D is ahead of B and E is immediately behind C, who is in the second place?
8. The sum of five consecutive even numbers is 320. What is the smallest of the five numbers?

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9. Melissa has twice as many cards as Brenda. What fraction of her cards should Melissa give Brenda so that they have the same number of cards?

10. The figure below is made up of a rectangle and a square. What is the perimeter of the figure?



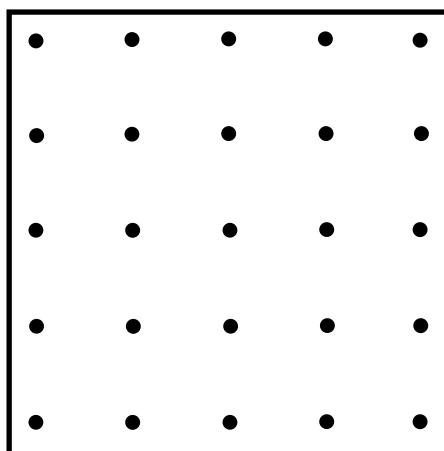
**Section B**

Each of the questions 11 to 20 carries 4 marks.

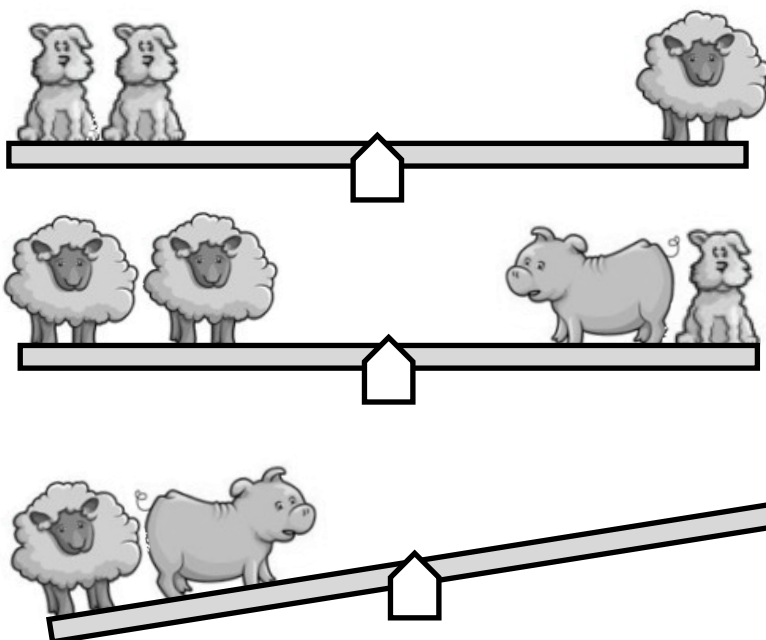
11. Find the values of A, B, C and D.

$$\begin{array}{r} 6\ C\ B\ 3 \\ -\ 4\ 6\ 0\ 8 \\ \hline D\ 6\ 9\ A \\ \hline \end{array}$$

12. The diagram below shows a geoboard.  
Draw the largest square possible inside the geoboard such that the square only touches four dots at its four corners.



13. How many dogs will have to get on the last see-saw to get it to balance?



14. The counting numbers are arranged in four columns as shown below. Under which column will 2016 appear?

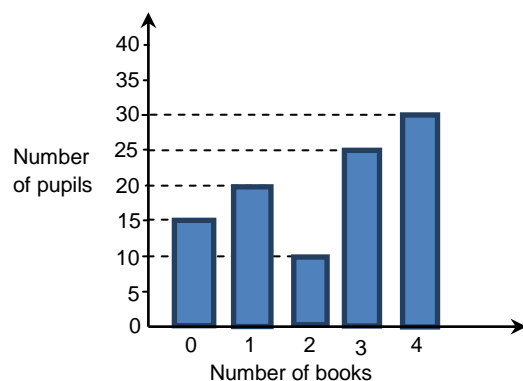
A	B	C	D
		1	2
6	5	4	3
7	8	9	10
14	13	12	11

15. Both Mr Khoo and Mr Lu sell chicken rice. Mr Khoo sells each plate at \$2 cheaper than Mr Lu. The table below shows how much money each of them received over five days.

	Mon	Tue	Wed	Thu	Fri
Mr Khoo	\$170	\$335	\$250	\$295	\$360
Mr Lu	\$189	\$406	\$350	\$301	\$567

One Wednesday, both Mr Khoo and Mr Lu sold the same number of plates of chicken rice. On which day did Mr Lu sell more plates of chicken rice than Mr Khoo? How many more?

16. Pupils are allowed to borrow up to 4 library books at any time. The graph below shows the number of books borrowed by pupils one day. How many books were borrowed that day?



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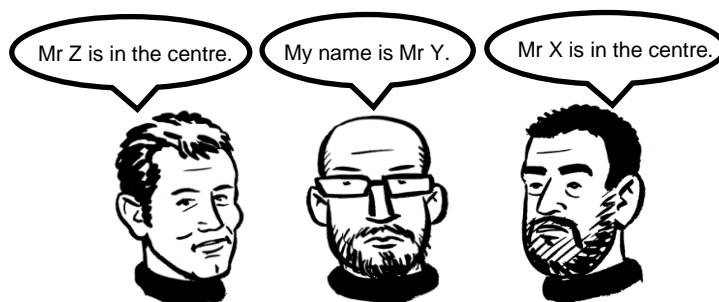
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17. 14 traffic cones were placed equally spaced in a straight line. The distance between the 1<sup>st</sup> cone and 4<sup>th</sup> cone is 12 m. What is the distance between the 2<sup>nd</sup> cone and the last cone?

18. Mother baked a cake like the one below and cut it into the largest number of equal pieces by making only 3 cuts. What fraction of the cake is 1 piece?



19. A play was performed by three men who stood in a row.



The pupils were told that Mr X never lies, Mr Y sometimes lies and Mr Z always lies. Name the actors.

20. In the following equations, each symbol represents a digit.

$$\diamond \times \diamond = \text{⌘} \circ$$

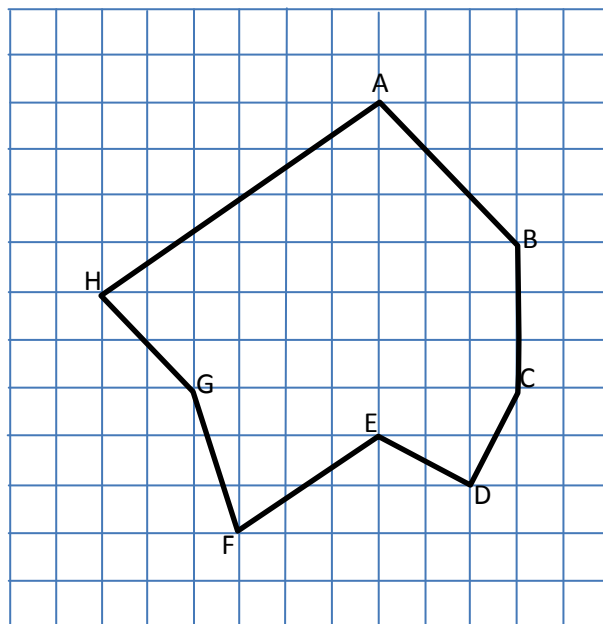
$$\boxtimes \times \circ = \boxtimes$$

What is  $\text{⌘} \times \diamond$  ?

**Section C**

Questions 21, 22, 23, 24 and 25 carry 6, 7, 8, 9 and 10 marks respectively.

21. Name two pairs of parallel lines and the one pair of perpendicular lines.

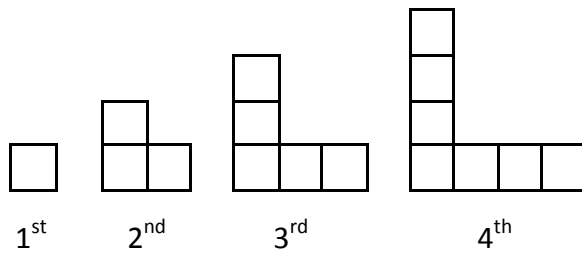


22. The total capacity of Pails A, B and C is 1 litre 80 ml. Pail A's capacity is three times as much as the total capacities of Pails B and C. Pail B has a capacity twice as much as Pail C. What is the difference in capacities between Pail A and Pail B?

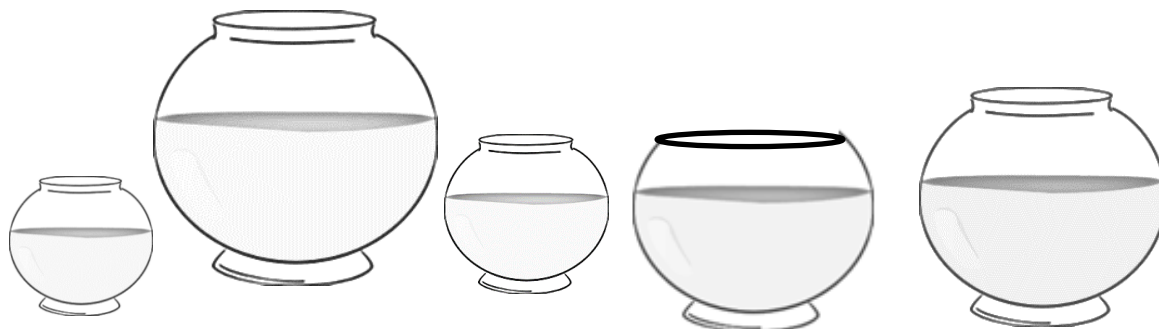


23. Daniel has 3 apples and 4 oranges. What is the least number of apples and/or oranges that Daniel has to buy so that  $\frac{2}{3}$  of them are apples?

24. How many squares will there be in the 2016<sup>th</sup> design of your pattern?



25.



Gerald has 30 fish which he kept in 5 fish bowls.  
There are more than one fish in each bowl.  
There are different numbers of fish in each bowl.  
The total number of fish in the two smallest bowls is less than half a dozen.  
The first bowl on the left does not have the least number of fish.  
The biggest bowl has three times as many fish as the bowl in the middle.  
The bowl with the widest opening has as many fish as the total number of fish in the three tanks to the left of it.  
How many fish are there in the last bowl on the right?