



INTERNATIONAL SINGAPORE MATHS COMPETITION 2019 (Primary 5)

1 hour 30 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 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. What is the smallest number that has a remainder of:
 - 1 when divided by 2
 - 2 when divided by 3
 - 3 when divided by 4
 - 4 when divided by 5

2. The average test score of a class of 35 pupils was miscalculated as 81.2 marks. One of the pupil's score was wrongly recorded as 62 instead of 76. What should the correct class average be?

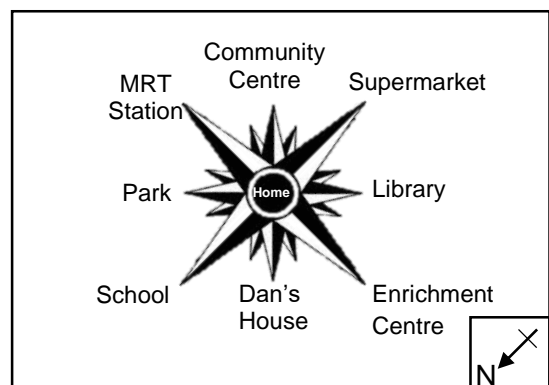
3. Mother uses $\frac{1}{3}$ of a bag of flour to make 12 muffins. A bag of flour weighs 720 g. How many muffins can Mother make with 1 kg of flour?

4. Using all the four digits, 6, 2, 5, 8, and the decimal point, form a number that is closes to 6.

5. There are 150 fish in a large water tank. 50 of them are Goldfish, $\frac{2}{5}$ of the remainder are Guppies and the rest are Clownfish. What percentage of all the fish are Clownfish?

6. The number of Carnations in a bouquet was 75% of the number of Sunflowers. After adding another 4 Carnations and 4 Sunflowers, the number of Carnations became 80% of the number of Sunflowers. What is the total number of Carnations and Sunflowers in the bouquet now?
7. A chemist is mixing two liquids together. He was supposed to add 16 millilitres of Liquid X to every 80 millilitres of Liquid Y. However, he added 324 millilitres of Liquid X to 1.6 litres of Liquid Y. How much more of Liquid Y does the chemist need to add to the mixture to get the right proportion?
8. How many 2 cm by 2 cm by 2 cm cubes can be fitted into a box with a square base of 7 cm and height of 8 cm?
9. A large cube is made up of 216 small cubes. The large cube is then painted on 5 sides. How many of the 216 small cubes have paint on them?

10. Peter wants to go to the Library from home. In which direction, according to the compass, should Peter be heading out?



Section B

Each of the questions 11 to 20 carries 4 marks.

11. Fill in the digits 0 to 7 in the blanks to make the subtraction correct.

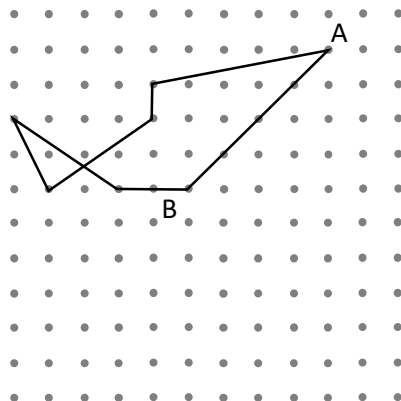
$$\begin{array}{r}
 \square \square \square \square \\
 - \square \square \square \square \\
 \hline
 4 \ 0 \ 5 \ 9
 \end{array}$$

12. $\frac{2}{5}$ of a class of students are born in the first quarter of the year; 30% are born in the second half of the year; and 6 students are born in the last quarter of the year. If there are twice as many students born in the second quarter as in the third quarter of the year, how many students are there in the class altogether?
13. How many 4-digit numbers consisting of each of the digits 1, 2, 3 and 4 are multiples of 11?
14. The price of a purse is 80% that of a wallet. During a sale, both the purse and the wallet were each given a \$15 discount. If the new price of the purse is now 75% of the new price of the wallet, what is the price of the wallet before the discount?

15. The sum of four whole numbers A, B, C and D is 150.
If $A = B \times 2 = C \times 3 = D \times 4$, find the four numbers.

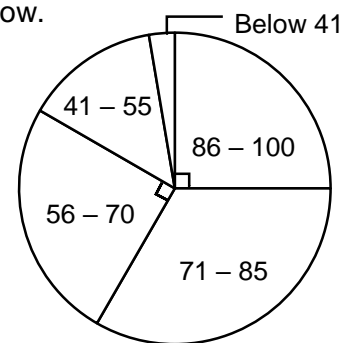
16. I have a sheet of rubber 50 cm by 51 cm. What is the largest number of rectangles, 10 cm by 15 cm, that I can cut out from this rubber sheet?

17. Complete the figure below to make it symmetrical about the Line AB.



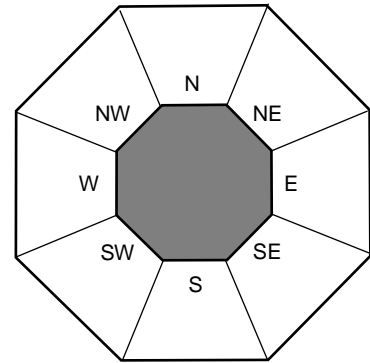
18. Mr Tan tabulated the scores of 600 students in the pie chart below.

If twice as many students scored between 71 and 85 as those who scored below 56; and 16% of the class scored between 41 and 55, how many students scored below 41?



19. Eight friends live together in an octagonal hostel where the eight rooms are along the 8 sides of the building. The room along the south wall is the most windy. Use the clues to figure out which student has which room.

- Clues:
1. Jack's room is 180° from Vincent's, and Elfan's is 180° from Oliver's.
 2. Kurt's room is 90° from Vincent's, and Andy's is 90° from Oliver's.
 3. Halim's is 45° from Vincent's, and Clint's is 45° from Andy's.
 4. Clint loves his windy room.
 5. Jack loves watching the sunset from his room, and Elfan likes having a little of the morning sun in his room.
 6. Halim's room is 180° from Andy's.



20. Arrange 10 dots along 5 straight lines such that there are 4 dots on each of the lines. In your Answer Sheet, draw the 5 straight lines and the 10 dots.

Section C

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

21. Fill in all nine blanks with the numbers:

6, 8, 10, 12, 14, 16, 18, 20, 22

such that the sum of the numbers in the first, second and third rows are 40, 42 and 44 respectively and the sum of the numbers in the three columns are all 42.

			40
			42
			44
42	42	42	

22. A jewellery shop displays three of its finest precious stones. The value of the Blue Diamond is $\frac{2}{3}$ as much as the total value of the Pink Diamond and Yellow Diamond. The value of the Pink Diamond is $\frac{3}{5}$ as much as the total value of the Blue Diamond and Yellow Diamond. If the Yellow Diamond is \$72 000 less than the value of the Pink Diamond, what is the value of the Blue Diamond?
23. Patsy spent $\frac{3}{8}$ of her money on 9 punnets of apples and 9 punnets of strawberries, and $\frac{2}{5}$ of the remaining money on 12 punnets of grapes. Each punnet of apples cost $\frac{1}{3}$ as much as a punnet of strawberries. Each punnet of grapes cost \$4 more than a punnet of apples. How much money does Patsy have left?
- 24a. The ratio of Aldran's savings to June's saving was 4 : 3. After Aldran has saved another \$40 and June has spent \$20, the ratio became 8 : 1. What was their total savings at first?
- 24b. June brought some apples and Aldran bought some pears to an old folks' home. The ratio of the apples to the pears bought was 8 : 3. After June gave 5 apples and Aldran gave 2 pears to each old folk, there were 7 apples and no pears left. How many fruits were there at first?

25. Lana, Kara and Waka took a Quiz of which Section A consists of two multiple-choice questions (options A, B or C) and Section B consists of four True-or-False questions. Lana, Kara and Waka got the same number of correct answers for Section A and also for Section B. The table below shows their answers.

	Section A		Section B			
	Q1	Q2	Q3	Q4	Q5	Q6
Lana	C	B	True	True	True	True
Kara	C	A	False	True	True	False
Waka	A	C	False	True	False	True

If each of them answered two questions incorrectly, what are the correct answers for each of the five questions?

End of Paper