

# COMO-马来西亚数学邀请赛：总决赛

## MALAYSIA MATHEMATICS INVITATIONAL : FINAL CHAMPIONS

4

2017

小学四年级  STANDARD 4

4

1 小时

### INSTRUCTIONS AND INFORMATION

1. Do not open the booklet until told to do so by your teacher.  
未获监考老师许可之前不可翻开此比赛试卷。
2. This question paper consists of 30 questions.  
本试卷共有 30 题。
3. Diagrams are NOT drawn to scale. They are intended only as aids.  
题目所提供之图形只是示意图，不一定精准。
4. Neither mathematical tables nor calculators may be used.  
不准使用数学表或计算器。
5. Write your answers in the answer boxes on the **separate answer sheet** provided.  
答案请另填写在所提供的作答卷的指定位置上。
6. Working may be shown in the space below each question.  
算式可写在试卷的任何空格里。
7. **Marks are awarded for correct answers only.**  
只有正确的答案才能得分。
8. The MiMAS reserves the right to re-examine students before deciding whether to grant official status to their score.  
为确保竞赛之公平及公正，MiMAS 主办单位保留要求考生重测之权利。

1 - 10 题，每题 3 分。

Question 1-10, 3 marks each.

1.  $894\square582 < 8945439$ ,  $\square$  中的数可能是多少?

$894\square582 < 8945439$ , which of the following number can fill in  $\square$ ?

- (A) 8                      (B) 3                      (C) 5                      (D) 6

2.  $(21 + 36 \div 3) \times 15 = ?$

- (A) 225                      (B) 495                      (C) 545                      (D) 625

3. 下列哪一个分数最大?

Which of the following are the largest fraction number?

- (A)  $\frac{13}{9}$                       (B)  $\frac{17}{11}$                       (C)  $\frac{29}{17}$                       (D)  $\frac{21}{13}$

4. 一个数，个位和十分位上都是数字 6，十位和百分位上都是 1，这个数写作?

A number, the ones digit and tenths digits are 6, the tens digit and hundredths digit are 1.  
What is this number?

- (A) 616.1                      (B) 61.16                      (C) 16.61                      (D) 60.01

5. 8465 最少要减去多少, 才能被 225 整除?

What is the smallest number which 8465 has to subtract makes it divided by 225 without remainder?

- (A) 140                      (B) 124                      (C) 90                      (D) 85

6. 若  $6\frac{2}{7} - 3\frac{4}{7} + \square = 9\frac{4}{7}$ , 则  $\square = ?$

If  $6\frac{2}{7} - 3\frac{4}{7} + \square = 9\frac{4}{7}$ , then  $\square = ?$

- (A)  $7\frac{2}{7}$                       (B)  $7\frac{4}{7}$                       (C)  $6\frac{1}{7}$                       (D)  $6\frac{6}{7}$

7. 85674079 中, 左边的 7 和右边的 7 所代表的数相差多少?

In number 85674079, what is the difference between the number 7 on the left and the number 7 on the right?

- (A) 0                      (B) 6930                      (C) 69930                      (D) 699930

8. 内角度数分别是 27 度、58 度、95 度的三角形是哪一种三角形?

Which type of triangle has angles with 27, 58 and 95 degree?

- (A) 直角三角形      (B) 正三角形      (C) 钝角三角形      (D) 锐角三角形  
Right                      Regular                      Obtuse                      Acute  
triangle                      triangle                      triangle                      triangle

9. 6055 公尺 + 4 公里 85 公尺 = ( ) 公里 ( ) 公尺

$$6055 \text{ m} + 4 \text{ km } 85 \text{ m} = ( ) \text{ km } ( ) \text{ m}$$

- (A) 6, 540      (B) 7, 240      (C) 8, 340      (D) 10, 140

10. 分针走了 30 分钟，共是旋转了几度？

How many degree does the minute hand move after 30 minutes?

- (A) 30 度      (B) 60 度      (C) 90 度      (D) 180 度  
degree      degree      degree      degree

### 11 - 20 题，每题 4 分。

#### Question 11-20, 4 marks each.

11. 一个等腰三角形的腰增加 5 公分，底减少 10 公分，会变成一个正三角形，则等腰三角形的周长和正三角形的周长哪一个比较长？

When the side of an isosceles triangle increases 5 cm and the base decrease 10 cm, it will become a regular triangle. Compare the perimeter of the isosceles triangle and the regular triangle, which is longer?

- (A) 等腰三角形      (B) 正三角形      (C) 一样长      (D) 无法判断  
Isosceles      Regular      Same      Can not be  
triangle      triangle      judged

12. 时钟上的指针从数字 11 顺时针方向转到数字 4，是转了几度？

How many degree does the hands on the clock move from number 11 to number 4 going clockwise?

- (A) 90      (B) 120      (C) 150      (D) 180

13. 爷爷每天健走 1 公里 750 公尺，1 星期共走了几公里几公尺？

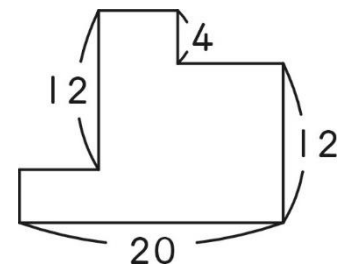
Grandfather walks 1 km 750 m every day. How long does he walk in a week? (in unit km and m)

- (A) 11 公里 750 公尺  
11 km 750 m
- (B) 12 公里 250 公尺  
12 km 250 m
- (C) 12 公里 750 公尺  
12 km 750 m
- (D) 13 公里 250 公尺  
13 km 250 m

14. 右图图形的周长为多少公分？（单位：cm）

What is the perimeter of the figure on the right? (in unit cm)

- (A) 60
- (B) 64
- (C) 68
- (D) 72



15. 使用 4、0、5 三张数字卡排出的最大二位小数是多少？（百分位不能为 0）

What is the largest two decimal places number that can be formed by 3 number cards, 4, 0, 5? (The hundredths digit cannot be 0)

- (A) 50.4
- (B) 40.5
- (C) 4.05
- (D) 5.04

16. 万 千 百 十 零 一 三 四 五 七 八 九

这几张纸卡可以拼成许多不同数字的读法(每张纸卡只能使用一次)，最大的数字可以记作：

Ten thousand Thousand Hundred Ten Zero One Three Four Five Seven Eight Nine

These number cards on above can make many different numbers pronunciation (Each number card only be used once). The largest number is:

- (A) 98750004
- (B) 98750043
- (C) 98750431
- (D) 98754310

17.  $482 \times 357 \times 663$  所得积的个位数字是多少?

What is the ones-digit of the product of  $482 \times 357 \times 663$ ?

- (A) 2                      (B) 3                      (C) 7                      (D) 1

18. 一个数减掉 5，乘以 5，加上 5，再除以 5，结果得 5，这个数是多少?

A number minus 5, multiples it by 5, adds 5, then divided by 5, the answer becomes 5. What is the original number?

- (A) 0                      (B) 5                      (C) 9                      (D) 15

19. 学校草地进行整修找来 10 个工人预定 22 天完工，施工四天后再增加 2 个工人，要再几天才能完工?

School needs refurbish grass, hire 10 workers complete work on 22 days. How many days it need to complete, if increase 2 workers after 4 days the refurbish start?

- (A) 8                      (B) 10                      (C) 12                      (D) 15

20. 姐姐买了两条缎带，其中红色缎带长  $12\frac{1}{6}$  公尺，绿色缎带长  $5\frac{5}{6}$  公尺，红色缎带比绿色缎带长多少公尺?

Sister buy 2 ribbons, red ribbon longs  $12\frac{1}{6}$  m, green ribbon longs  $5\frac{5}{6}$  m. How many m the red ribbon longer than the green ribbon?

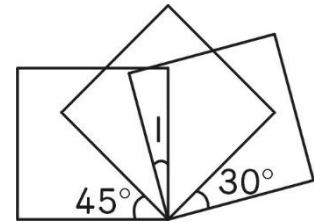
- (A)  $5\frac{1}{6}$                       (B)  $6\frac{2}{6}$                       (C)  $6\frac{4}{6}$                       (D)  $7\frac{1}{6}$

**21 - 30 题，每题 5 分。**

**Question 21-30, 5 marks each.**

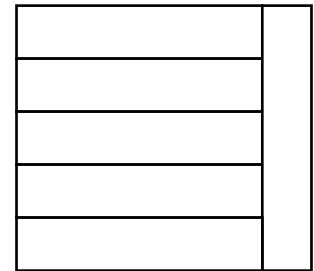
21. 三个正方形叠放在一起，如右图所示。问 $\angle 1$ 的度数是？

Three square overlap as the figure. What is the degree of  $\angle 1$ ?



22. 一张长方形纸周长是 96 公分，用 6 张一样大的长方形纸排成一个大长方形如右图，问大长方形的面积是多少平方公分？

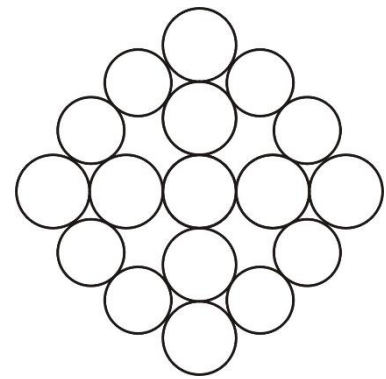
The perimeter of a rectangle paper is 96 cm, use 6 pieces same rectangle to build a large rectangle as in right figure. What is the area of the large rectangle in unit  $\text{cm}^2$ ?



23. 学校为新生分配房间，若每间房间分配 4 人，则有 22 人没有分配到房间，若每间房间分配 6 人，则有 3 间房间没有人住，请问新生共有多少人？

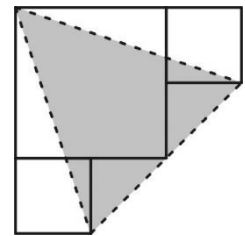
The school allocates rooms for new students, if every 4 persons a room, there are 22 persons have no room. If every 6 persons a room, then 3 rooms are empty. How many new students are there?

24. 17 个圆如右图排列，一只青蛙从中央的圆出发，每次只能跳到相邻的圆上，五次后跳回到中央的圆的情况有几种？



17 circles arrange as on the right figure. A frog starts from the center, it can only jumps to the adjacent circle, it jumps back to the center after 5 times of jump. How many different method are there?

25. 如图，有两个小正方形和一个小正方形，大正方形的边长是小正方形边长的 2 倍，涂色部分三角形面积为 240 平方公分，那么这三个正方形的面积和是多少平方公分？



In right figure, it has two small squares and one large square, the side of large square is 2 times of the small square's side. The area of the shaded area is  $240 \text{ cm}^2$ . What is the sum of the area of these three squares?

26. 有一类多位数，从左数第 3 位数字开始，每位上的数都等于其左边第 2 个数减去其左边第 1 个数的差。如 74312、6514。那么这类数中最大的是多少？

There is a type of multiple-digits number, starting with the third digit of the left, each digit is equal to the second digit on the left minus the first digit on the left. i.e. 74312 and 6514. What is the maximum number of these type of number?



27. 王、林两家人，各有两个儿子，4人年龄都不同且都至少1岁，未满9岁，名字分别叫：小枫、小诺、小阳、小哲，请依下列叙述，找出王家小儿子的年龄和全名。
- A: 小枫最大。
  - B: 小诺比他哥哥小3岁。
  - C: 小阳是王家其中一个儿子岁数的一半。
  - D: 小哲比林家小儿子大5岁。
  - E: 两家各只有一个儿子不到5岁。

Two Family, Ong and Lim, each family has 2 sons, 4 persons has difference age and at least 1 years old and no more than 9 years old, they are Fong, Nuo, Yang and Zhe. Use the following description, Find out the age and name of the younger son of Ong Family.

- A: Fong is Eldest.
- B: Nuo is 3 years younger than his brother.
- C: Yang is half of age of one of the sons from Ong Family.
- D: Zhe is 5 years older than the younger son of Lim Family.
- E: Both family only has one son no more than 5 years old.

28. 红、黄、蓝三种颜色的球分别有11、12、17个，每次操作可将2个不同颜色的球换成2个第三种颜色的球（如：红、黄色球各1颗→2颗蓝色的球），则在操作过程中，红色球最多的时候有多少颗？

Red, yellow and blue three colors of the balls have 11, 12 and 17 respectively. Each operation can change 2 different colors balls into two balls on the third colors (i.e. 1 red ball and 1 yellow ball → 2 blue ball). During the operation, how many red balls are there when it is at most?

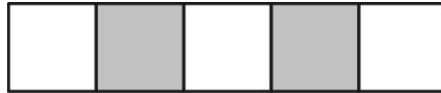
29. 将数字 1~6 填入空白方格中，使得每一行、每一列数字 1~6 都只恰好出现一次，方格表还被粗浅线划分成了 6 块区域，每个区域中数字 1~6 也恰好都只出现一次，那么最下面一行的前 4 个数字组成的四位数  $\overline{ABCD}$  是？

Fill in the grid below by using number 1~6, makes number 1~6 appears once on each column and each row. The grid table below is divided into 6 areas by the thick line, number 1~6 also appears once on each area. What is  $\overline{ABCD}$  which is the first 4 numbers on the last row?

1	2				
					2
		4	5		
		5	2		
4					
A	B	C	D	6	5

30. 如图将 1、2、3、4 和 5 分别填入图中的格子内，并且填在灰色格子内的数字要比它旁边的两个数都大，则共有多少种填法？

How many methods are there to fill in the grid below by using number 1, 2, 3, 4 and 5, makes the number on the grey grid is larger than the two numbers next to it (on the white grid)?



本试卷共有 12 页（包括本页）