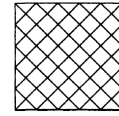- 比賽共有有13題填空題，每題10分。除第13題外，請把答案填在右方的空格內。

- There are 13 fill-in-the-blank questions, each is 10 marks. Except question 13, please write your answers in the boxes on the right.

1. 計算　Evaluate

$$20 - 21 \div \left[5.2 \times 14.6 - (9.2 \times 5.2 + 5.4 \times 3.7 - 4.6 \times 1.5) \right] = \underline{\quad}.$$

2. 右圖是由相同的正方形和相同的等腰直角三角形構成，

則大小不同的正方形總數是＿＿＿ 。

The right figure consists of identical squares and identical right angled triangles, the number of squares (of all possible size) is ＿＿＿.

3. 一個三位數 $\overline{abc}$ 稱爲幸運，如果它的三個數字之和爲10，

三個數字各不相同且都不爲零；例如172。這樣的幸運數共有＿＿＿個。

A 3-digit number $\overline{abc}$ is called *lucky*, if the sum of its 3 digits is 10, and these digits are distinct and nonzero. 172 is lucky for example. There are ＿＿＿ lucky numbers.

4. 有三堆硬幣，第二堆比第一堆的3倍多4個，第三堆比第一堆的4倍少1個。

當第二與第三堆的硬幣數目相同時，第一堆硬幣的總數是＿＿＿個。

There are 3 piles of coins. The number of coins in the second pile is 4 more than 3 times of that of first pile. The number of coins in the third pile is 1 less than 4 times of that of first pile. If the numbers of the coins in the second and the third piles are equal, then there are ＿＿＿ coins in the first pile.

5. 一家三口，爸爸比媽媽大3歲，現在他們一家人的年齡之和是80歲。
10年前全家人的年齡之和是51歲。媽媽今年是＿＿＿歲。

In a family of three, the father is 3 years older than the mother, and at present the sum of the ages of all members in the family is 80 years. 10 years ago, the sum of all members in the family was 51 years. The age of the mother is now ＿＿＿ years old.

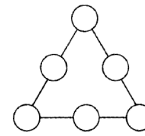6. 某班有46人，其中有40人會騎自行車，38人會踢足球，35人會打羽毛球。

該班會以上三項運動的至少有＿＿＿人。

There are 46 students in a class, 40 of them can ride bicycle, 38 of them can play football, and 35 of them can play badminton.
There are at least ＿＿＿ students who can play all 3 sports.

7. 下圖中(大小不同的)平行四邊形的總數是＿＿＿個。
In the figure below, there are ＿＿＿ parallelograms (of all possible sizes).

8. 將六個數 2, 4, 6, 8, 10, 12 分別填入右圖中的圓圈(每圓內僅填一個數)，
   使得每邊上三個數之和都是相等。這個和是_____。

   Fill in the six numbers 2, 4, 6, 8, 10 and 12 respectively to the six circles
   on the right, a number each circle, such that the 3 sum of the numbers
   on the same side are equal. The value of the sum is _____.

9. 商場裡有三種價格分別是 3 元，4 元，6 元的杯子。小明買杯子，
   付款 30 元，找回 5 元。小明總共買了_____個杯子。

   There were 3 types of cups at different prices: $3, $4, $6 each in market.
   Ming brought cups there, and paid $30 with $5 changes back.
   Ming brought _____ cups.

10. 小強有一個三位數的密碼。小光猜說："它是 954"；小明猜說："它是 358"；
    小亮猜說："它是 214"。小強說："你們各都只猜對了一個位置的數字且
    位置各不相同"。那麼這密碼是_____。

    A has a 3-digit password. 'It is 954 ' B guessed; 'It is 358' C guessed;
    'It is 214 ' D guessed. 'Each of you has a correct digit and
    these digits are at different positions' A said. The password is _____.

11. 盒子裡有編號分別為 1 到 10 的十個球，小明先後三次從盒中共取出九個球。
    在第二次及第三次中，每次取出的球的編號之和都是前一次的 2 倍。
    盒子裡未取出的球的編號是_____。

    There are 10 balls in a box, and they are labelled with numbers from 1
    to 10 respectively. Ming picked up 9 balls out from the box in 3 turns.
    In the second and the third turns, it is found that the sum of numbers in the
    balls picked in any turn is twice the sum of the numbers in the balls picked
    in the previous turn. The number of the ball left in the box is _____.

12. 某年 4 月所有星期五的日期數之和是 80，這年 4 月的第一個星期三的
    日期數是_____。 (註：2022/1/23 的日期數是 23)

    In a year, the sum of the dates of all Fridays in April is 80. The date of the
    first Wednesday in April in this year is _____.
    (Note. The date of 2022/01/23 is 23.)

13. 試在下圖空格填寫合適的數，使得每個方格內的數是下方與它相鄰的兩方格
    內的數之和。
    Fill in the empty cells with suitable numbers, such that the number
    in each cell is equal to the sum of the numbers in the two adjacent cells below.

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