P3 GEP R2 Practice

1. Alex reads a novel. If he reads 30 pages a day, he will finish it one day later than the designated time; If he reads 35 pages a day, he only needs to read 30 pages on the last day of the specified time to finish; If he reads 33 pages every day, how many pages will he have to read on the last day to finish the book according to the specified time?

2. Alex runs every 6 days; Ben runs every 8 days. Their first run together was on Friday. What day of the week did they run together for the fourth time?

3. Both boxes A and B contain the same number of bottles. Each bottle in box A contains 1L of milk, while each bottle in box B contains 550ml of milk. If A and B exchange $\frac{1}{3}$ of the bottles, and A has 9L more milk than B, how many bottles does A have at first?

4. Dave drove from A at 9:50, rested for 50 minutes after arriving at B, and finally drove to C at 14:20. The time taken from B to C is 10 minutes more than twice that of A to B. What time does Dave leave from B?

5. October 18th, 2023 is Wednesday, so what day is February 11th, 2022?

6. The following picture is a square piece of paper. Now, we have cut this square into three identical small rectangles. The perimeter of one small rectangle is 16 centimetres. So, what is the perimeter of the original square?
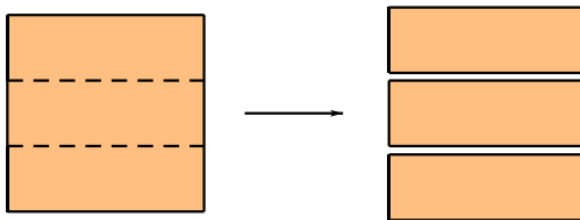
7. What is the area of a rectangle if its perimeter is 60 centimetres and its width is 2 centimetres less than its length?

8. In the following equation, the same Chinese character represents the same number, and different Chinese characters represent different numbers. Given that "级" =5, what are the three digits represented by "来方田"?

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      来  方  田
  +   1   2  级
  ─────────────
  更   进  1  步
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9. There are 8 cards with 0, 1, 2, 3, 4, 5, 6, 7 written on them respectively. How many different numbers greater than 6000 can be formed?

10. Among the whole numbers from 1 to 75. How many numbers are there that are neither divisible by 5 nor divisible by 7?

11. Several waiters are carrying plates. If each person carries 5 plates, there will be 3 plates left. If two of them each carry 4 plates and the rest each carry 6 plates, no plates will be left. How many waiters are there in total? How many plates need to be carried in total?

12. A rectangular piece of land is evenly divided into eight small squares, each with a perimeter of 15 meters. What is the perimeter of the original rectangular land in meters?
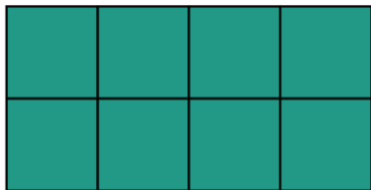
13. The following figure shows four identical squares stacked together, each square with a side length of 6 meters, and each pair of intersecting edges cut each other into two equal parts. What is the perimeter of this entire figure?
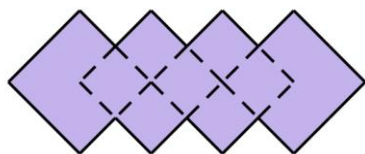
14. The perimeter of a rectangle is 40 meters, and its length is 2 meters more than its width. What is the area of this rectangle in square meters?

15. A rectangle and a square have the same perimeter. The length of the rectangle is 10 meters, and the width is 2 meters less than the length. How many square meters are their respective areas?

16. When there are 46 black squares in a rectangle, how many white squares are there in the rectangle?
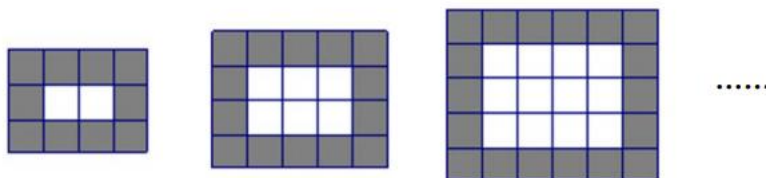
17. Fill in the boxes below with numbers 1-4 so that the four numbers in each row and column are not repeated. And the number in the upper left corner, as well as "+", "-" or "×", represent the "sum", "difference" or "product" of the numbers filled in the thick line area. If there is no arithmetic symbol, fill the number in this square.

2−		2−	
3×		2	6+
6×	3−		
	1	7+	

18. Cindy has some sweets. She could pack an equal number of sweets into 8 bags. After she ate 3 sweets from one bag, Cindy could replace all the sweets into 5 bags equally. What is the smallest possible number of sweets in each bag?

19. The figure below shows two large circles. On each large circle, there are 5 small circles. Place the numbers 2, 5, 6, 8, 10, 12, 14, and 22 into the small circles such that the sum of any five numbers on the same large circle equals 49.