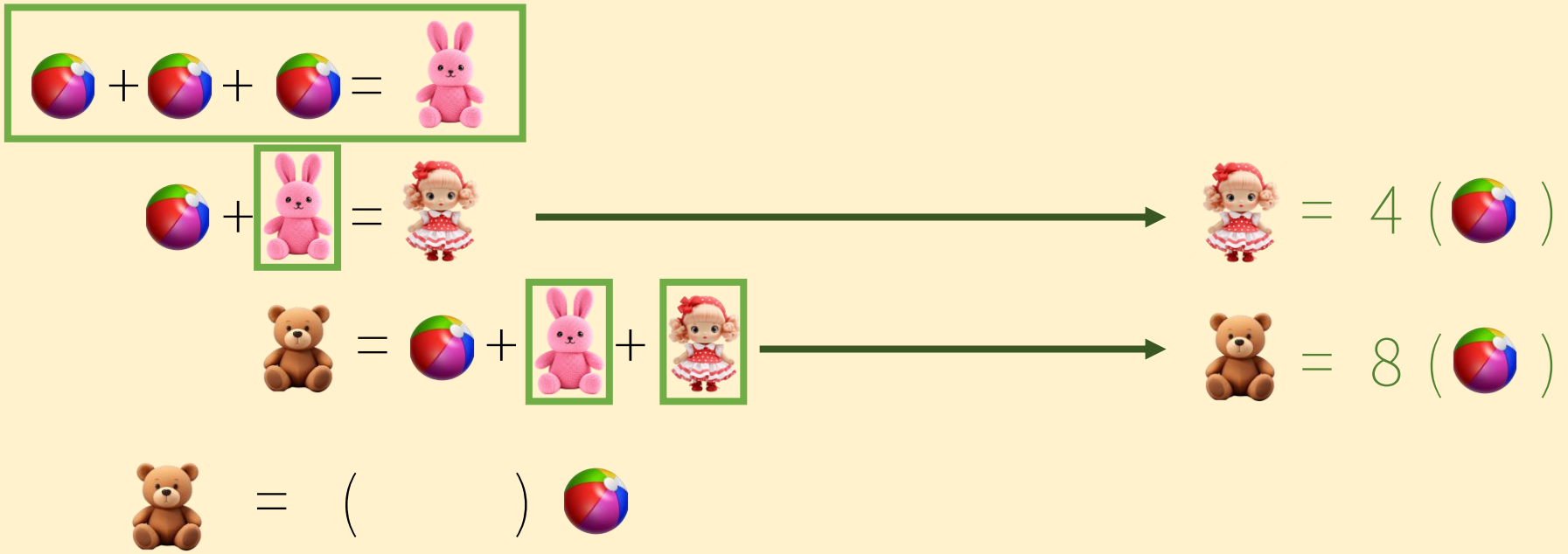
Primary 2

2026 Spring Cup

Detailed Solution

Q1. Fill the blanks.



Ans: 8

Q2. Alex bought 22 bottles of juice. Each bag can hold at most 4 bottles of juice. Alex needs at least _____ bags.

$22 \div 4 = 5\ R2$

$5 + 1 = 6$

Ans: 6 bags

Q3. A red fruit cannot be paired with a red drink. How many different ways are there to pair one drink with one fruit?

Total number of drinks: 3

Total number of fruits: 5

Total number of pairs: $5 \times 3 = 15$

But red drink cannot be paired with apple

Also red drink cannot be paired with strawberry

So removing those 2 ways

Number of pairs: $15 - 2 = 13$

Ans: 13

Q4. Find the pattern and fill in the blank

One 1 → $1 \times 1 = 1$

Two 1 → $11 \times 11 = 121$

Three 1 → $111 \times 111 = 12321$

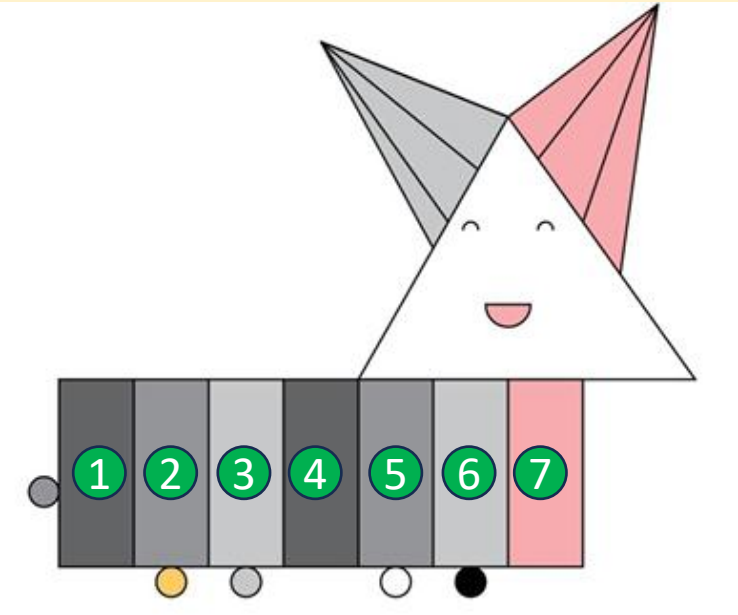
Four 1 → $1111 \times 1111 = 1234321$

$\vdots$

Nine 1 → $111111111 \times 111111111 = 123456789\,87654321$

Ans: 123456789 87654321

Q5. How many rectangles are there in the picture?



Counting in order

Count 1 part: 7

Count 2 parts : 6

Count 3 parts : 5

Count 4 parts : 4

Count 5 parts : 3

Count 6 parts : 2

Count 7 parts : 1

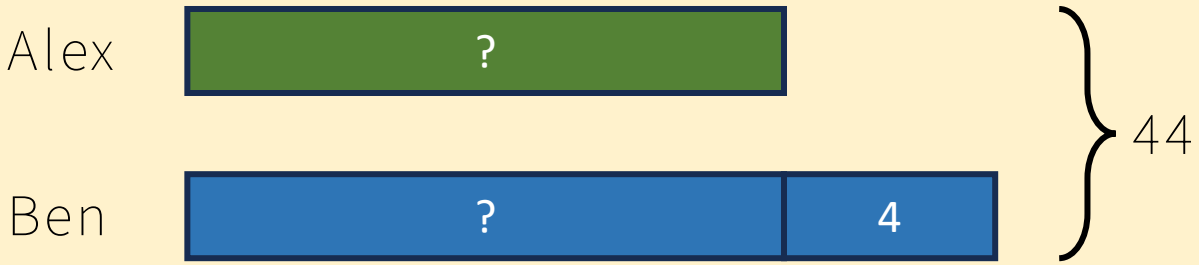
Total number of rectangles = 7 + 6 + 5 + 4 + 3 + 2 + 1 = 28

Ans: 28

Q6. Alex and Ben originally had a total of 49 oranges. After Alex ate 5 of his own oranges, he then gave 10 oranges to Ben. In the end, Ben had 4 more oranges than Alex. How many oranges did Alex have originally?

In the end,

Alex ate 5, so number of oranges = 49 – 5 = 44



Two parts (?): 44 – 4 = 40

One part (?): 40 ÷ 2 = 20

Alex have originally: 20 + 10 + 5 = 35

Ans: 35

Q7. Fill in the circles with "–" or "÷" to make the equation true

$$36 \circ 4 \circ 8 = 8 \circ 56 \circ 8$$

$36 \div 4 - 8$ $\qquad$ $8 - 56 \div 8$

$9 - 8$ $\qquad$ $8 - 7$

8. Cindy plants flowers in the pattern of 2 yellow flowers and 5 red flowers. She plants a total of 29 flowers. Deft then plants 3 blue flowers and 6 yellow flowers. Altogether, they plant _____ yellow flowers.

Cindy:

Number of groups planted by Cindy: $29 \div 7 = 4\ R1$

Number of yellow flowers by Cindy: $4 \times 2 + 1 = 9$

Deft:

Total number of yellow flowers: $9 + 6 = 15$

Ans: 15

9. According to the pattern, how many small cubes should there be in the 8th figure?

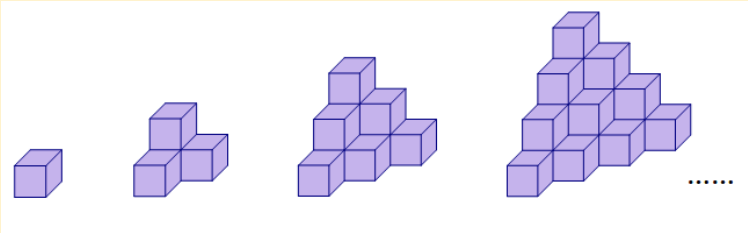


Figure:	Cubes:
1	1
2	1 + 2 + 1 = 4
3	4 + 3 + 2 + 1 = 10
4	10 + 4 + 3 + 2 + 1 = 20
5	20 + 5 + 4 + 3 + 2 + 1 = 35
6	35 + 6 + 5 + 4 + 3 + 2 + 1 = 56
7	56 + 7 + 6 + 5 + 4 + 3 + 2 + 1 = 84
8	84 + 8 + 7 + 6 + 5 + 4 + 3 + 2 + 1 = 120

Ans: 120

10. Swap exactly 3 cards so that the sum of the 4 numbers in each group is 15. Write down the numbers in each group after the swap.

1 2 4 5	1 2 4 6
1 3 7 9	1 2 4 8

Step 1: Finding the total of each group.

A= 12	1 2 4 5	1 2 4 6 B= 13
C= 20	1 3 7 9	1 2 4 8 D= 15

The final group with sum 15, don't need change

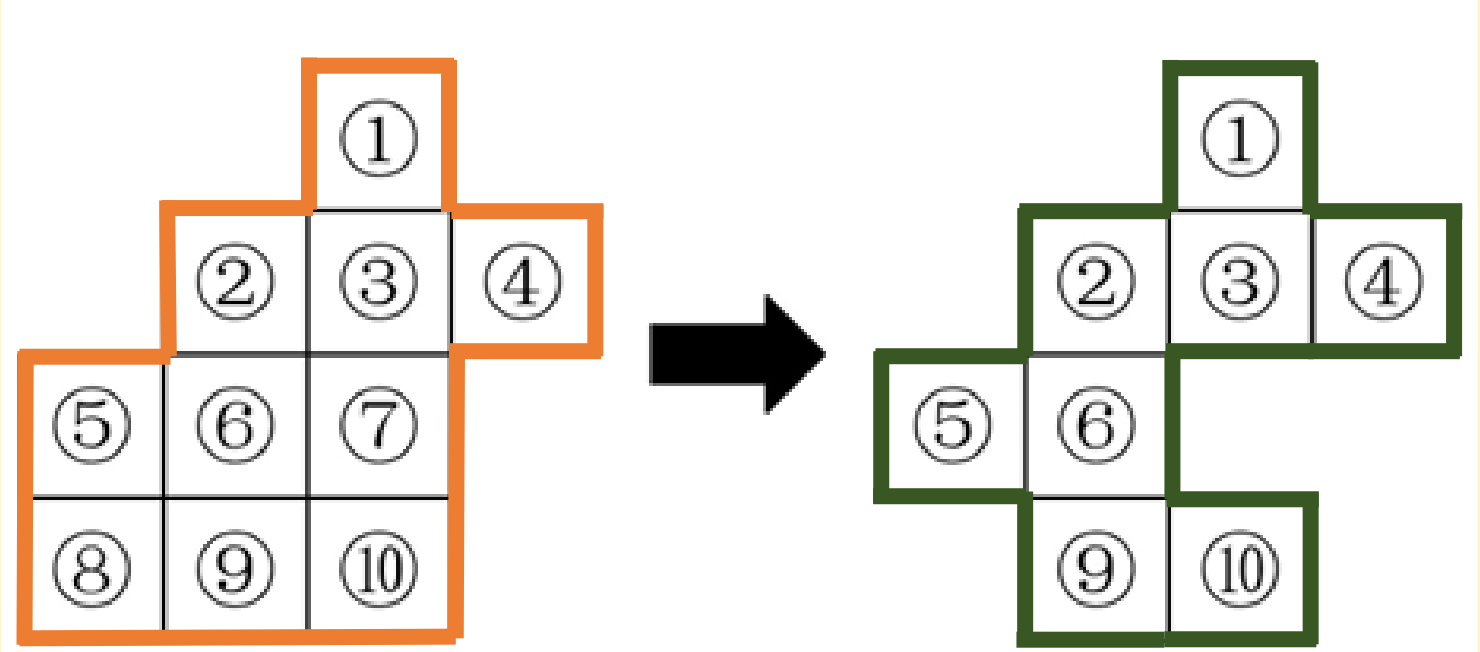
Step 2: Swapping cards from A and C

A= 15	1 2 7 5	1 2 4 6 B= 10
C= 17	1 3 4 9	1 2 4 8 D= 15

Step 3: Swapping cards from C and B

A= 15	1 2 7 5	1 4 4 6 B= 15
C= 15	1 3 2 9	1 2 4 8 D= 15

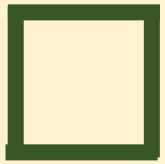
11. The perimeter of the figure on the right is 6 cm longer than the perimeter of the figure on the left. The perimeter of one small square is _____ cm.



2 ▬ Lines : 6 cm

1 ▬ Line : 6 ÷ 2 = 3 cm

Perimeter of 1 square: 3 x 4 = 12 cm



Total number of ▬ lines:

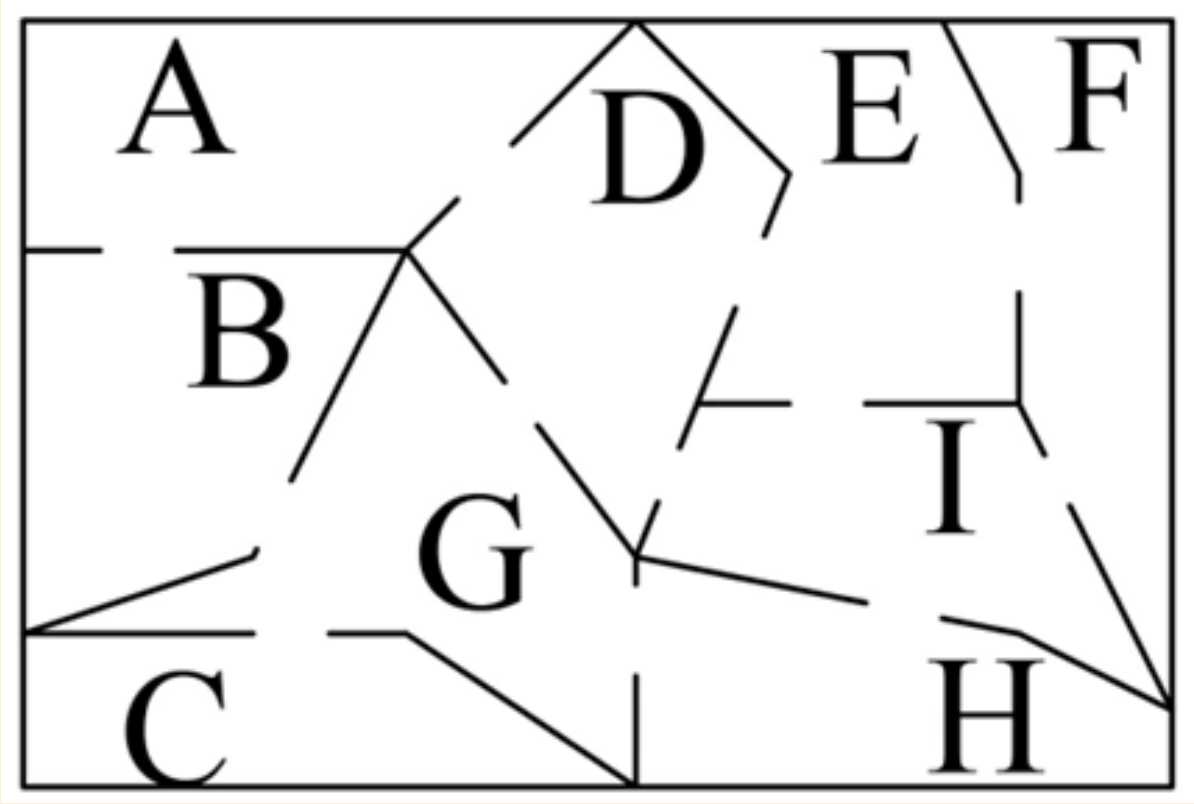
16

Total number of ▬ lines:

18

Ans: 12

12. The diagram below is a treasure map. You can only obtain the final treasure by passing through every door in each room. Under the fastest route, which two rooms serve as the starting and ending points?



Using the principle of Eulerian graph:

A: 2 gates

B: 2 gates

C: 1 gate

D: 4 gates

E: 3 gates

F: 2 gates

G: 4 gates

H: 2 gates

I: 4 gates

Both C and E has odd number of gates

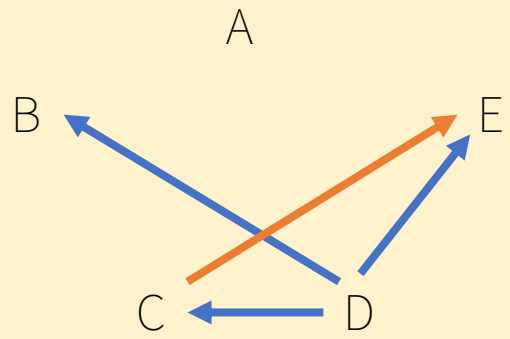
Ans: C and E

13. Five students, A, B, C, D and E, shake hands with each other, with each pair shaking hands at most once. In the case where not every pair shakes hands, is it possible for each student to have a different number of handshakes? If it is possible, please provide one example (how many handshakes each student has and with whom). If it is not possible, assuming that four of them have different numbers of handshakes, determine the number of handshakes of the fifth student.

It is not possible for 5 students to have different number of handshakes

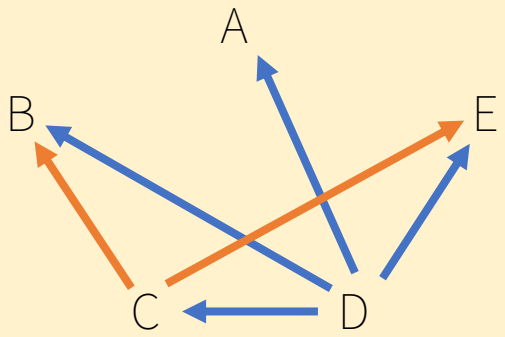
To have different number of handshakes for four students, the possible cases are:

Case1: Number of handshakes for each
A: 0 B: 1 C: 2 D: 3



E has 2 handshakes

Case2: Number of handshakes for each
A: 1 B: 2 C: 3 D: 4



E has 2 handshakes

Ans: 2