

TIMO KHỐI 3 VÒNG QUỐC GIA 2024 - 2025

Logical thinking (Tu duy Logic)

1. According to the pattern below, what is the English letter in the space provided?

Pattern: Quy luật; English letter: Chữ cái tiếng Anh; Space: Chỗ trống.

Q , A , O , C , L , F , _ , J ,

key: H

2. If 9th July, 2024 is Tuesday, which day of the week is 31st March, 2024?

July: Tháng 7; Tuesday: Thứ Ba; Day of the week: Thứ trong tuần; March: Tháng 3.

key: Sunday

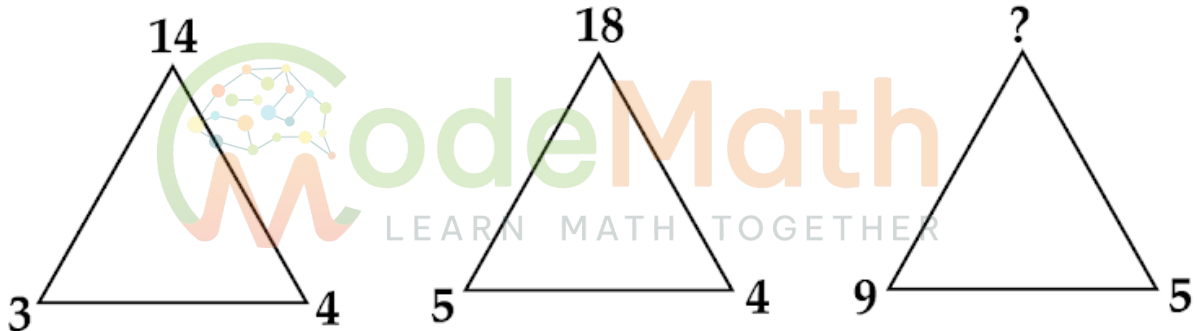
3. Mary needs 20 minutes to draw 1 picture and rest for 5 minutes. At most how many pictures can Mary draw in 3 hours?

Minute: Phút; Draw: Vẽ; Picture: Bức tranh; Rest: Nghỉ; At most: Nhiều nhất; Hour: Giờ.

key: 7

4. According to the pattern shown below, what is the missing number?

Pattern: Quy luật; Missing number: Số còn thiếu.

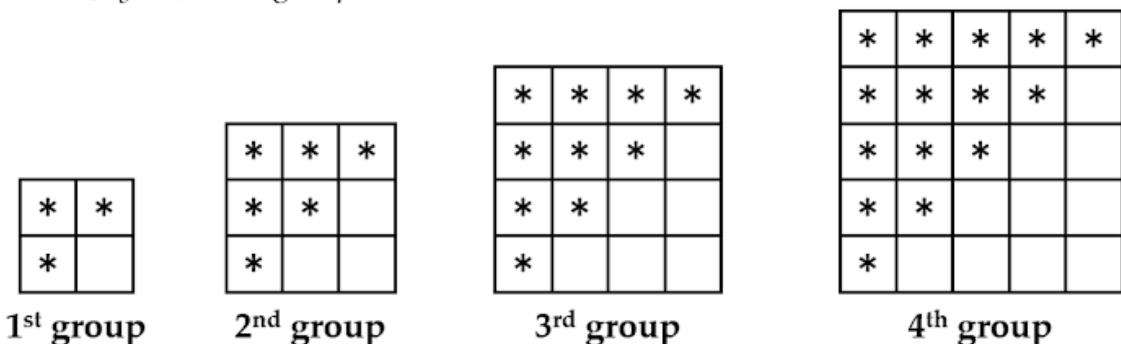


key: 28

5.

According to the pattern shown below, how many * are there in the 10th group?

Pattern: Quy luật; 10th group: Nhóm thứ 10.



key: 66

Arithmetic (Số học)

6.

Find the value of $351 + 506 + 612 + 604 + 488 + 319$.
Value: Giá trị.

key: 2880

7.

Find the value of $300 : 2 + 300 : 4 + 300 : 12 + 300 : 15 + 300 : 30$.
Value: Giá trị.

key: 280

8. What is the number filled in the blank if the equation below is correct?
Fill: Điền; Blank: Chỗ trống; Equation: Phép tính; Correct: Đúng.

$$\underline{\hspace{2cm}} \div 5 \times 7 - 9 = 19$$

key: 20

9.

Find the value of $19 \times 63 + 38 \times 25 - 13 \times 19$.

Value: Giá trị.

key: 1900



10.

Find the value of $23 \div 11 + 45 \div 11 + 62 \div 22$.

Value: Giá trị.

key: 9

Number theory (Lý thuyết số)

11.

Define the operation symbol $a \otimes b = (a - b) \times (3 \times a + 2 \times b)$, find the value of $84 \otimes 34$.

Define: Định nghĩa; Operation symbol: Ký hiệu phép toán; Value: Giá trị.

key: 16000

12. What is the smallest 3-digit even number that is divisible by 3, 5 and 7?

Smallest: Nhỏ nhất; 3-digit even number: Số chẵn có 3 chữ số; Divisible: Chia hết.

key: 210

13. Given that A and B are different digits, find the value of $A + B$.

Different: Khác nhau; Digit: Chữ số; Value: Giá trị.

$$\begin{array}{r}
 A \quad B \\
 \times \quad A \\
 \hline
 9 \quad 6
 \end{array}$$

key: 5

14. The numbers below form an arithmetic sequence. What is the sum of the 11th term and the 14th term?

Arithmetic sequence: *Dãy số cách đều*; Sum: *Tổng*; 11th term: *Số thứ 11*; 14th term: *Số thứ 14*.

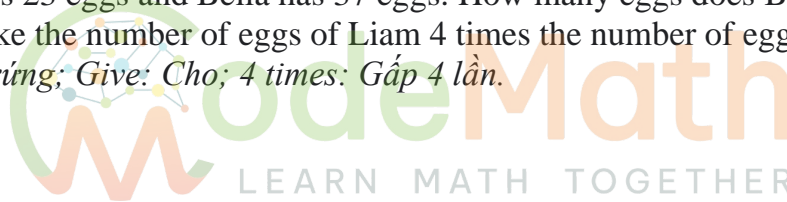
9, 16, 23, 30, 37, ...

key: 179

15. Liam has 23 eggs and Bella has 37 eggs. How many eggs does Bella have to give Liam to make the number of eggs of Liam 4 times the number of eggs of Bella?

Egg: *Quả trứng*; Give: *Cho*; 4 times: *Gấp 4 lần*.

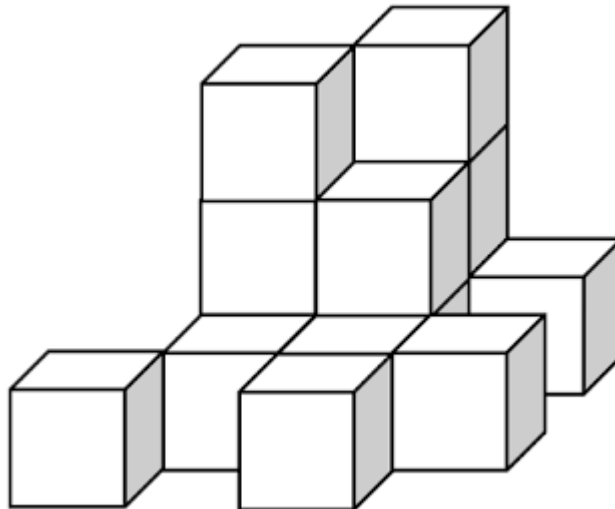
key: 25



Geometry (Hình học)

16. Identical cubes are combined to get the figure below. At least how many square faces can be seen if viewing the figure from the right?

Identical: *Giống nhau*; Cubes: *Hình lập phương*; Figure: *Hình vẽ*; At least: *Ít nhất*; Square faces: *Mặt hình vuông*; Viewing: *Quan sát*; Right: *Bên phải*.



key: 8

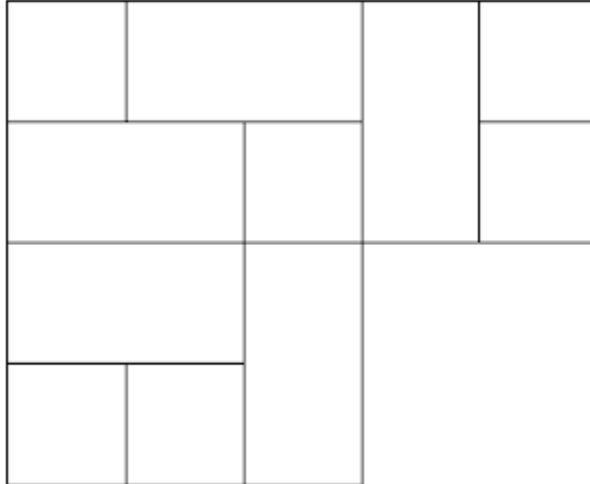
17. A prism has 60 vertices. Find the difference between the number of edges and the number of faces of this prism.

Prism: Hình lăng trụ; Vertices: Đỉnh; Difference: Hiệu; Edges: Cạnh; Faces: Mặt.

key: 58

18. How many squares are there in the figure below?

Squares: Hình vuông; Figure: Hình vẽ.



key: 10

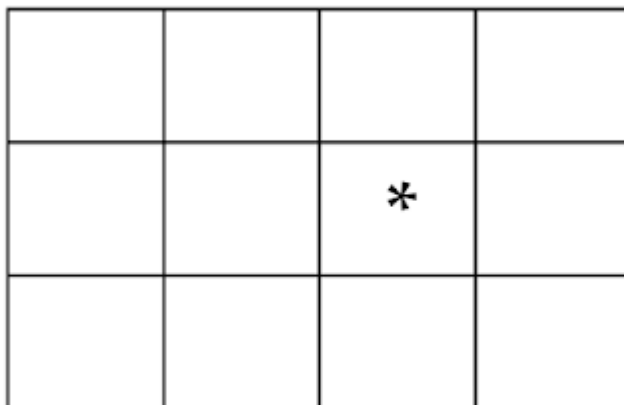
19. A square with a side length of 12 cm is cut into 9 identical small squares. What is the perimeter of each small square in cm?

Square: Hình vuông; Side length: Độ dài cạnh; Identical: Giống nhau; Perimeter: Chu vi.

key: 16

20. How many rectangles with "*" are there in the figure below?

Rectangle: Hình chữ nhật; Figure: Hình vẽ.



key: 24

Combinatorics (Tổ hợp)

21. How many 3-digit odd numbers less than 500, larger than 200 are there without repetition of digits?

3-digit odd number: Số lẻ có 3 chữ số; Less than: Nhỏ hơn; Larger than: Lớn hơn;
Without repetition of digits: Các chữ số không lặp lại.

key: 112

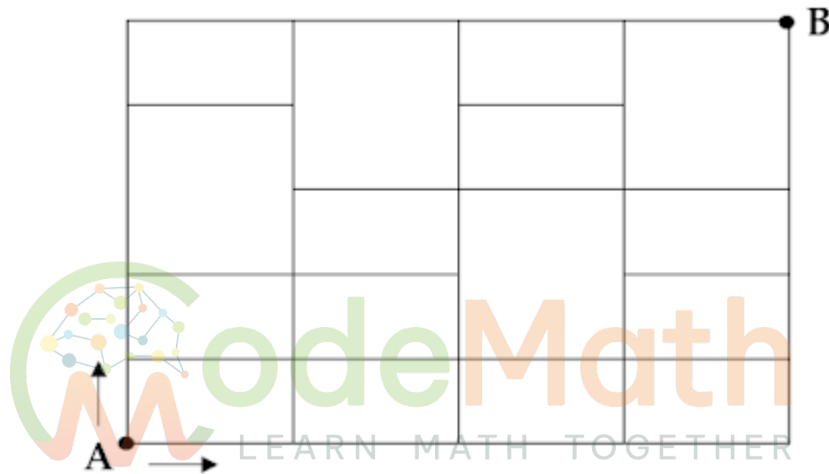
22. After Melo gives 40 chocolates to Andy and Melo takes 23 chocolates from Eric, they will have equal number of chocolates. How many chocolates does Melo have more than Andy originally?

Gives: Cho; Takes: Lấy; Equal: Bằng nhau; More than: Nhiều hơn; Originally: Lúc đầu.

key: 57

23. In how many different ways can Amy walk from point A to point B following the paths in the figure below such that she can only move up or move right?

Different ways: Các cách khác nhau; Point: Điểm; Path: Đường đi; Figure: Hình vẽ;
Move up: Đi lên trên; Move right: Đi sang phải.



key: 58

24. Peter has 9 \$10 notes, 8 \$20 notes and 4 \$100 notes. At most how many souvenirs can he buy if a souvenir costs \$21?

Note: Tiền; At most: Nhiều nhất; Souvenir: Quà lưu niệm.

key: 30

25. Numbers are drawn from 45 integers 6 to 51 at random. At least how many numbers do we need to draw to ensure that there are two chosen numbers whose sum is 70?

Drawn: Được lấy ra; Integer: Số nguyên; At random: Ngẫu nhiên; At least: Ít nhất;
Ensure: Chắc chắn; Sum: Tổng.

key: 31