



**ΚΥΠΡΙΑΚΗ ΜΑΘΗΜΑΤΙΚΗ ΕΤΑΙΡΕΙΑ**  
**10<sup>η</sup> Κυπριακή Μαθηματική Ολυμπιάδα**

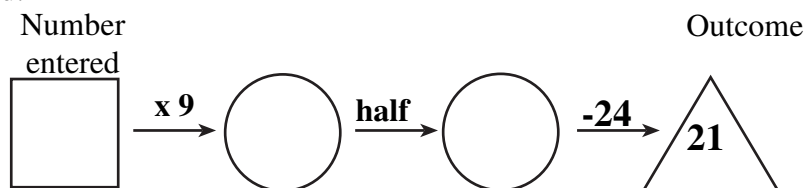
**April 2009**

**Time: 60 minutes**

**Δ' ΔΗΜΟΤΙΚΟΥ- IV PRIMARY**

**QUESTION 1**

A number was entered in the following calculator and we got the outcome 21, as it is indicated:



What number was entered?

A	B	Γ	Δ	E
10	810	45	90	None of the previous

**QUESTION 2**

The houses in a road are numbered from 1 up to 34. How many times the digit 3 was used in this numbering of the houses?

A	B	Γ	Δ	E
7	8	9	10	11

**QUESTION 3**

Which of the following propositions is wrong?

A	$8 \times 0 < 7 \div 7$
B	$63 \div 7 > 64 \div 8$
Γ	$9 \times 6 < 7 \times 8$
Δ	$48 \div 6 < 36 \div 9$
E	$28 \div 7 > 3 \times 1$

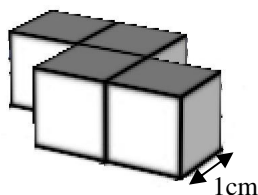
**QUESTION 4**

Which of the following propositions is NOT right?

A	A Square is a rectangle.
B	A square is a rhombus.
Γ	A rectangle is a rhombus.
Δ	A rhombus is a parallelogram.
E	A parallelogram is a quadrilateral.

**QUESTION 5**

How many square centimeters of paper do we need to cover the solid consisting of four cubes as it is shown in the following figure?



A	B	Γ	Δ	E
20	19	18	16	9

**QUESTION 6**

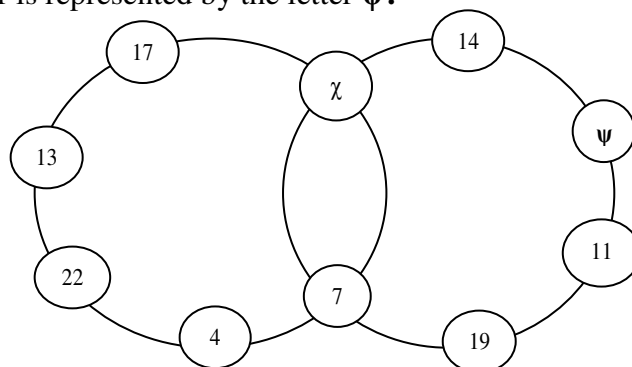
What is the sum of the digits represented by @ and ☼?

$$\begin{array}{r}
 \square \quad \square \quad \square \\
 \square \quad \text{☼} \quad \text{☼} \\
 \square \quad @ \quad @ \\
 \hline
 2 \quad 0 \quad 0 \quad 9
 \end{array}
 +$$

A	B	Γ	Δ	E
9	11	12	13	14

**QUESTION 7**

The letters  $\chi$  and  $\psi$  represent two numbers so that the sum of the numbers in each circle is equal to 69. What number is represented by the letter  $\psi$ ?



A	B	Γ	Δ	E
22	12	6	13	Κανένα από τα προηγούμενα

**QUESTION 8**

What number do we have to add to 73205 so that the outcome can be read backwards as well ?

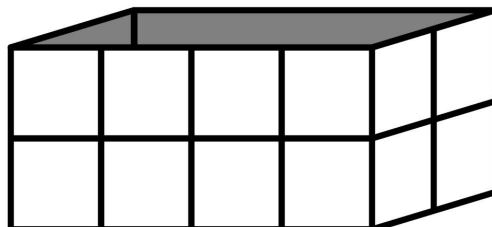
A	B	Γ	Δ	E
37	32	73	50	None of these

### QUESTION 9

How



many cubes do we need to fill the following box?



A	B	Γ	Δ	E
12	24	16	26	40

### QUESTION 10

You want to go to the cinema to watch a film of 60 minutes duration. The film starts at 7:30p.m. You want to be at the cinema 10 minutes earlier, so that you have the time to buy a ticket. If you need 20 minutes to go to the cinema from your home, at what time do you have to leave?

A	B	Γ	Δ	E
8:05 p.m.	6:50 p.m.	7:05 p.m.	6:55 p.m.	7:00 p.m.

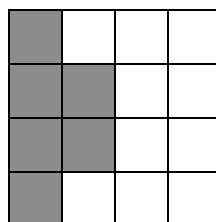
### QUESTION 11

The length of the road connecting the cities A and B is 24 km. On this road and in between the two cities there is a village. The length of the road connecting the village with the city B is triple the length of the road connecting the village with the city A. Then the length of the road connecting the village with the city A is :

A	B	Γ	Δ	E
6 km	8 km	12 km	18 km	None of these

### QUESTION 12

What part of the **un-shaded** area is the shaded area of the figure?



A	B	Γ	Δ	E
$\frac{6}{16}$	$\frac{10}{16}$	$\frac{5}{8}$	$\frac{5}{3}$	$\frac{3}{5}$

**QUESTION 13**

The outcome given on a calculator for  $\frac{1}{6}=0,16666666$ . Then the outcome for  $\frac{1}{60}$  is:

A	B	Γ	Δ	E
1,16666666	0,16666660	0,16060606	0,01666666	0,001666666

**QUESTION 14**

Peter is ill. His doctor told him that he has to take pill A every 8 hours, pill B every 5 hours and pill C every 10 hours. If he took all the pills at 7 in the morning of Tuesday, then he will take again all three pills simultaneously at:

A	B	Γ	Δ	E
6 a.m. Wednesday	3 p.m. Friday	11 p.m. Wednesday	9 a.m. Thursday	None of these

**QUESTION 15**

Find the following sum:

$$1 + 2 + 3 + \dots + 23 + 24 + 25$$

A	B	Γ	Δ	E
78	650	325	312	There are not enough data

**QUESTION 16**

Maria was given a bag of sweets by her grandfather. Maria, who was greedy, ate half of the sweets in one hour. In the next hour she ate half of the remaining ones and in the third hour half of what was left. In the fourth hour she ate again half of what was left. Now Maria has 2 sweets in her bag. How many sweets did Maria eat?

A	B	Γ	Δ	E
32	30	28	16	None of these

**QUESTION 17**

The sum of the digits of a 7-digit number is 6. Then the product of its digits is:

A	B	Γ	Δ	E
0	1	7	6	$1 \times 2 \times 3 \times 4 \times 5 \times 6 \times 7$

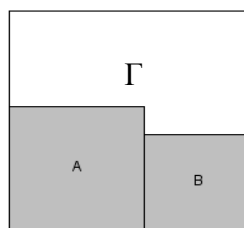
**QUESTION 18**

How many of the integers between 100 and 199, with all their digits different, are odd?

A	B	Γ	Δ	E
8	16	24	32	Κανένα από αυτά

**QUESTION 19**

A square contains two squares A and B with areas 16 square metres and 9 square metres respectively, as shown in the following figure. The perimeter in metres of the section Γ of the figure is:



A	B	Γ	Δ	E
21metres	24 metres	22 metres	20 metres	None of these

**QUESTION 20**

Find the next term of the sequence: 5, 6, 10, 15, 24, 38, 61, .....

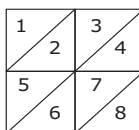
A	B	Γ	Δ	E
96	97	98	99	100

**QUESTION 21**

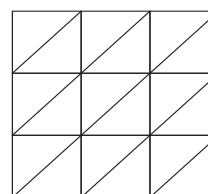
The three figures below, called “Σχήμα 1”, “Σχήμα 2” and “Σχήμα 3”, are divided into small equal triangles. How many such triangles are there in the Figure called “Σχήμα 3”?



Σχήμα 1



Σχήμα 2



Σχήμα 3

A	B	Γ	Δ	E
24	32	49	98	None of these

**QUESTION 22**

Today is Sunday. What day will it be after 100 days?

A	B	Γ	Δ	E
Sunday	Tuesday	Wednesday	Thursday	Friday

**QUESTION 23**

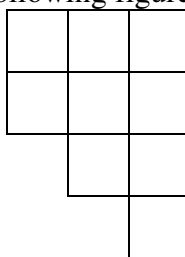
What is the last digit of the number representing the following sum?

$$(1000 \times 9) + (30 \times 9) + (4 \times 7)$$

A	B	Γ	Δ	E
0	4	7	8	9

**QUESTION 24**

How many squares can be found in the following figure?



A	B	Γ	Δ	E
8	9	10	11	12

**QUESTION 25**

Which of the following four digits numbers has the digit of its hundreds as double of the digit of its units and the digit of its tens as greater than the digit of its thousands?

A	B	Γ	Δ	E
8673	7683	6284	4351	8095

**QUESTION 26**

In the following magic square the sum of the numbers in each row, column and diagonal is the same:

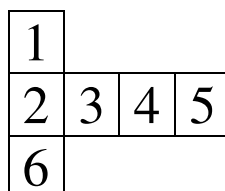
18		14
	20	
26		

When we complete the numbers in the square which of the following numbers IS NOT going to be used?

A	B	Γ	Δ	E
12	16	24	28	30

**QUESTION 27**

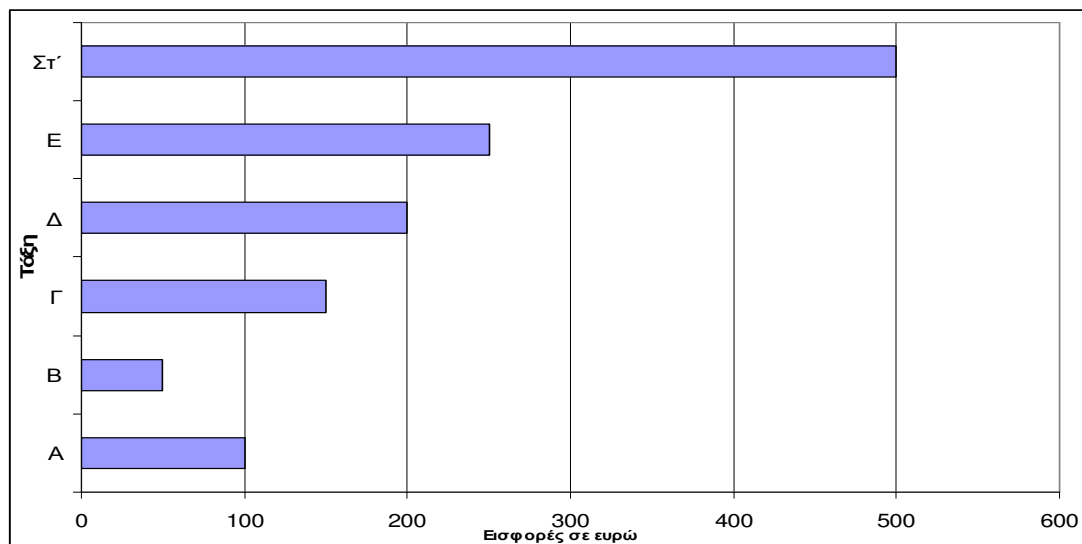
The following figure is folded in order to construct a cube. Which number lies at the bottom of the cube if the number 5 lies on the upper face?



A	B	Γ	Δ	E
1	2	3	4	6

### QUESTION 28

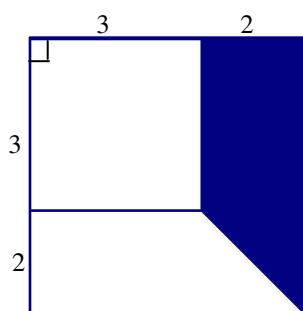
The following graph represents the contributions to the “RADIOMARATHONIO” of the classes of a primary school. What class contributed the one fifth of the total contribution, given that the word «τάξη» represents “class” and the phrase «εισφορές σε ευρώ» represents “contribution in euro”?



A	B	Γ	Δ	E
Α΄ τάξη	Β΄ τάξη	Γ΄ τάξη	Δ΄ τάξη	Στ΄ τάξη

### QUESTION 29

The area of the shaded region of the following figure, in square units, is:



A	B	Γ	Δ	E
8	9	10	11	16

### QUESTION 30

What is the difference between the largest six-digit number, with all of its digits different, and the smallest six-digit number, with all of its digits different as well?

A	B	Γ	Δ	E
888888	864198	975309	885309	None of these