

## Summer Round 2018./2019.

| SCHOOL |  |
| :---: | :--- |
| TEAM NUMBER |  |
| CATEGORY |  |
| COMPETITION |  |
| COMISSIONER |  |


| no. | FIRST AND LAST NAME OF <br> PARTICIPANT | YEAR | FIRST AND LAST NAME OF <br> MENTOR |
| :---: | :---: | :---: | :---: |
| 1. |  |  |  |
| 2. |  |  |  |

ANSWERS:

| Year 4 |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 4.1. | 4.6. |  | 4.13. |  |
| 4.2. | 4.7. |  | 4.14. |  |
| 4.3. | 4.8. |  | 4.15. |  |
|  | 4.9. |  | 4.16. |  |
|  |  | 4.17. |  |  |
|  |  | 4.18. |  |  |
|  | 4.19. |  |  |  |
|  |  | 4.20. |  |  |

## I P MATematika

www.matzelcic.com.hr
4.1. Which number will we get when we increase a number that is twice as big as 29134 by a half of 500 ?

| A. | B. | C. | C. | D. | E. We do not wish to <br> answer |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

4.2. Domino tiles are small, rectangular tiles divided into two squares which contain either an empty field or a field with one to six dots. How many different domino tiles are there on which the same number is on both squares?

$\left.\begin{array}{|l|l|l|l|l|l|}\hline \text { A. } & \text { B. } & \text { C. } & \text { D. } & \begin{array}{c}\text { E. We do not wish to } \\ \text { answer }\end{array} \\ \text { None of the } \\ \text { aforementioned }\end{array}\right]$
4.3. Luka invited six friends to his birthday party. If each of his friends ate four pieces of cake, there wouldn't be any cake left for Luka. How many pieces of cake will remain if each boy eats three pieces of cake?

| A. | B. | C. | D. | E. <br> We do not wish <br> to answer |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## CORRECT ANSWER: 20 POINTS

## ANSWER ,E"‘: 0 POINTS

ELSE: -4 POINTS
4.6. Using 30 square pieces of cloth, with a side length of 5 cm , Tamara's grandma wishes to make a rectangular quilt, with a red ribbon sewn around the edges. If the ribbon is 130 cm long, how long is the longer side of the quilt?


| A. | B. | C. | C | D. | E. | We do not wish <br> to answer |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

4.7. Marko saved 25 coins, each worth 2 or 5 kn . How many 5 kn coins does he have if Marko saved a total of 65 kn ?

| A. | B. | C. | D. | E. <br> More than 7 | We do not wish <br> to answer |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

4.8. How many times does the digit 2 appear in the sequence $10,11,12,13, \ldots 99$ ?

| A. | B. | C. | D. | E.We do not wish <br> to answer${ }^{2}$Less than 19 |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

4.9. The sum of the ages of the twenty-eight students from class 4 a is 272 . What will be the sum of their ages in four years?

| A. | B. | C. | D. It cannot be <br> determined | E. We do not wish to <br> answer |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## CORRECT ANSWER: 30 POINTS $\quad$ ANSWER „E": 0 POINTS $\quad$ ELSE: -6 POINTS

4.13. Leon solved 9 tasks on the first day, and on the following days, he solved 2 tasks each day. If he solved the 35 th task on Thursday, on which day of the week did he solve the 13th task?

| A. | B. |  | C. |  | D. |  | E.We do not wish <br> to answer <br> Tuesday | Sunday |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

4.14. Luka's great-grandmother has three sons. Each of her sons has two children, and each of their children has one child. They have all gathered at a family celebration. Luka wanted to give each person a ticket to his concert. How many tickets must Luka bring?

| A. | B. | C. | D. | E.We do not wish <br> to answer |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

4.15. In how many years will the sum of the digits of the year be the same as the sum of the digits of the current year?

| A. |  | B. | C. | D. | E.We do not wish <br> to answer Less than 9 |  | 9 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

4.16. A girl named Ika wishes to go from $\boldsymbol{*}$ to $\mathbf{A}$ by writing the sequence $\boldsymbol{*}$ IKA. In how many different ways can she do that?


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| A. | B. | C. | D. | D. | E.We do not wish <br> None of the <br> to answer <br> aforementioned |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

4.17. Jakov must fill the empty fields with digits in such a way that on the blue fields there are no even numbers, and on the yellow fields, there are no odd numbers. In how many ways can he do that if the sum of all numbers must be 23? All digits on the fields must be different.

4.18. As shown on the image, the figure consists of five yellow squares which were placed on top of five blue squares (the centres of the yellow squares are also the centres of the blue squares). The sides of the blue squares are 2 cm longer than the sides of the yellow squares. If the area of one yellow square is $9 \mathrm{~cm}^{2}$, what is the perimeter of the whole figure?


| A. | B. | C. | D. | E. <br> None of the <br> aforementioned | We do not wish <br> to answer |
| :--- | :--- | :--- | :--- | :--- | :--- |

4.19. What is the difference of the sum of the first 21 odd numbers and the sum of first 20 even natural numbers?

| A. | B. | C. | D. | E. <br> None of the <br> aforementioned | We do not wish <br> to answer |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

4.20. How many different cubes exist such that two faces are purple, and the rest are green?

| A. | B. | C. | D. | E. <br> We do not wish <br> to answer |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

