

Autumn 2018./2019.

| SCHOOL |  |
| :---: | :--- |
| TEAM NUMBER |  |
| CATEGORY |  |
| COMMISSIONER |  |


|  | Student's name and surname | Year | Mentor's name and surname |
| :---: | :---: | :---: | :---: |
| 1. |  |  |  |
| 2. |  |  |  |

ANSWERS:

| 4TH YEAR |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| 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 MATematika

www.matzelcic.com.hr

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## CORRECT ANSWER: 10 pts

ANSWER ,, ${ }^{6 /}$ : 0 pts
FALSE ANSWER: - $\mathbf{2 p t s}$
4.1. The number from which we subtract is called:

4.2. Which statement is incorrect?

| A. <br> A line segment is part of a line | B. <br> A ray is part of a line | C. <br> A line segment is part of a ray | D. <br> A line is part of a ray | E. We don't want to answer |
| :---: | :---: | :---: | :---: | :---: |

4.3. What is the remainder when dividing 345 by 7 ?

| A. | B. | C. | D. | E. | We don't want to <br> answer |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## CORRECT ANSWER: 20 pts

ANSWER ,,E": 0 pts
FALSE ANSWER : $\mathbf{- 4}$ pts
4.6. World champion Tin Srbić practises every day, except on Sundays, from 7:15 am to 9:45 am, and then again from 4:45 pm to 7 pm . How much time does he spend training every week?


| A. | B. | C. | D. | E.We don't want to <br> answer <br> 18 hours 45 minutes |
| :--- | :--- | :--- | :--- | :--- |
| 22 hours 30 minutes | 23 hours 45 minutes | 28 hours 30 minutes |  |  |

4.7. Domino tiles are small rectangular tiles split into two squares. These squares can be empty or have one to six dots. How many different domino tiles exist with a square that has five dots?


| A. | B. | C. | D. | E. <br> Less than 20 | We don't want to <br> answer |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

4.8. Friends Allan, Bob, Charlie, and Dave reserved four consecutive seats in the cinema. Charlie is sitting to Bob's left. Allan is sitting at the end of the row. No one is sitting between Bob and Dave. Allan and Bob are sitting next to each other. Which one of them is sitting on the leftmost seat?

| A. | B. | Cllan | Cob |  | D. | Eharlie | We don't want to <br> answer |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

4.9. Five years ago the sum of Marc's parents' ages was 50 years. What will the sum of their ages be in 7 years?

| A. | B. | C. | D. <br> Can't be determined | E.We don't want to <br> answer |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## CORRECT ANSWER: 30 pts $\quad$ ANSWER ,,E" $: 0$ pts $\quad$ FALSE ANSWER : -6 pts

4.13. How many three-digit numbers are there, so that their value won't change if we change the position of the hundreds and the units digit?

4.14. In his checkered notebook Luke colored a big square in green color. That big square has several smaller squares within itself. After that he colored 24 small squares in yellow, so he expanded the big green square by one column and one row on each side. How many small squares did he color?

| A. | B. | C. | D. | E. <br> We don't want to <br> answer |
| :--- | :--- | :--- | :--- | :--- | :--- |

4.15. Which one of the following statements doesn't have to be true?

| A. Number |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| divisible by 4 is <br> even | B. Number divisible <br> by 7 is odd | C. Number divisible <br> by 10 is even | D. Every number is <br> divisible by 1 | E. We don't want to <br> answer |

4.16. Mary attends a knitting class on Fridays, but only on even dates. She pays for the course on the fifth day of the month. If Mary went to her class three times in one month, what was the day in week that she paid for the course?

| A. |  | B. | C. | D. | E. <br> Can't be determined | We don't want to <br> answer |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

4.17. A square is divided by three parallel lines into four different rectangles. If the sum of perimeters of all rectangles is 150 cm , what is the perimeter of the square?

| A. | B. | C. | D. | C. <br> Can't be determined | We don't want to <br> answer |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

4.18. Luke's book has 123 pages. How many digits in total were used to mark all the pages of that book?

| A. | B. | C. | D. | E. <br> We don't want to <br> answer |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

4.19. For the birthday party, organizers put five round tables, and around each table they put chairs numerated with numbers $1,2,3$, etc. If chair number 4 is opposite to chair number 10 , how many chairs are there in total?

| A. 60 | B. | C. | D. | E.We don't want to <br> answer |
| :--- | :--- | :--- | :--- | :--- | :--- |

4.20. In how many different ways can Jan pay for chocolate worth 12 kuna, if she has coins of 1,2 , and 5 kn ?

| A. | B. | C. | D. | E. <br> We don't want to <br> answer |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

