



## Summer Round 2018./2019.

|                          |               |
|--------------------------|---------------|
| SCHOOL                   |               |
| TEAM NUMBER              |               |
| CATEGORY                 | <b>Year 3</b> |
| COMPETITION COMMISSIONER |               |

| no. | FIRST AND LAST NAME OF PARTICIPANT | YEAR | FIRST AND LAST NAME OF MENTOR |
|-----|------------------------------------|------|-------------------------------|
| 1.  |                                    |      |                               |
| 2.  |                                    |      |                               |

### ANSWERS:

| Year 3 |  |      |  |       |  |
|--------|--|------|--|-------|--|
| 3.1.   |  | 3.6. |  | 3.13. |  |
| 3.2.   |  | 3.7. |  | 3.14. |  |
| 3.3.   |  | 3.8. |  | 3.15. |  |
|        |  | 3.9. |  | 3.16. |  |
|        |  |      |  | 3.17. |  |
|        |  |      |  | 3.18. |  |
|        |  |      |  | 3.19. |  |
|        |  |      |  | 3.20. |  |

I ♥ **MAT**ematika

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|                                  |                             |                        |
|----------------------------------|-----------------------------|------------------------|
| <b>CORRECT ANSWER: 10 POINTS</b> | <b>ANSWER „E“: 0 POINTS</b> | <b>ELSE: -2 POINTS</b> |
|----------------------------------|-----------------------------|------------------------|

3.1. Out of 873 kn of saved money, Matko spent a third. How many kuna does he have left?

|                     |                     |                     |                     |                                    |
|---------------------|---------------------|---------------------|---------------------|------------------------------------|
| <b>A.</b><br>291 kn | <b>B.</b><br>582 kn | <b>C.</b><br>290 kn | <b>D.</b><br>583 kn | <b>E.</b> We do not wish to answer |
|---------------------|---------------------|---------------------|---------------------|------------------------------------|

3.2. Which of the given expressions is the greatest?

|                           |                                |                             |                           |                                    |
|---------------------------|--------------------------------|-----------------------------|---------------------------|------------------------------------|
| <b>A.</b><br>$3+3\cdot 3$ | <b>B.</b><br>$3\cdot 3\cdot 3$ | <b>C.</b><br>$3:3+3\cdot 3$ | <b>D.</b><br>$3:3\cdot 3$ | <b>E.</b> We do not wish to answer |
|---------------------------|--------------------------------|-----------------------------|---------------------------|------------------------------------|

3.3. Annie is shorter than Katie and Katie is taller than Janice. Who is the shortest?

|                    |                     |                    |                                  |                                    |
|--------------------|---------------------|--------------------|----------------------------------|------------------------------------|
| <b>A.</b><br>Annie | <b>B.</b><br>Janice | <b>C.</b><br>Katie | <b>D.</b><br>We cannot determine | <b>E.</b> We do not wish to answer |
|--------------------|---------------------|--------------------|----------------------------------|------------------------------------|

|                                  |                             |                        |
|----------------------------------|-----------------------------|------------------------|
| <b>CORRECT ANSWER: 20 POINTS</b> | <b>ANSWER „E“: 0 POINTS</b> | <b>ELSE: -4 POINTS</b> |
|----------------------------------|-----------------------------|------------------------|

3.6. When the difference of the numbers 1000 and 483 is divided by the greatest digit of the quotient of the numbers 345 and 3, the remainder will be:

|                |                |                |                |                                    |
|----------------|----------------|----------------|----------------|------------------------------------|
| <b>A.</b><br>1 | <b>B.</b><br>2 | <b>C.</b><br>3 | <b>D.</b><br>4 | <b>E.</b> We do not wish to answer |
|----------------|----------------|----------------|----------------|------------------------------------|

3.7. Dunja, Višnja and Jagoda saw a fruit cup that costs 26 kn and 50 lp in a window of an ice cream shop. Dunja had a 10 kn banknote, two 5 kn coins and four 50 lp coins. Višnja found in her backpack: 8 coins of 2 kn, three coins of 1 kn and 6 coins of 20 lp. Jagoda had one banknote of 10 kn and one banknote of 20 kn. How much money are they missing to be able to buy three fruit cups?

|                         |                   |                         |                         |                                    |
|-------------------------|-------------------|-------------------------|-------------------------|------------------------------------|
| <b>A.</b><br>6 kn 30 lp | <b>B.</b><br>7 kn | <b>C.</b><br>7 kn 30 lp | <b>D.</b><br>6 kn 70 lp | <b>E.</b> We do not wish to answer |
|-------------------------|-------------------|-------------------------|-------------------------|------------------------------------|

3.8. The difference of two numbers is 111. If the minuend is increased by 54, and the subtrahend is decreased by 32, by how much did the difference change?

|                                  |                                  |                                  |                                  |                                    |
|----------------------------------|----------------------------------|----------------------------------|----------------------------------|------------------------------------|
| <b>A.</b><br>It increased by 22. | <b>B.</b><br>It decreased by 86. | <b>C.</b><br>It increased by 86. | <b>D.</b><br>It decreased by 22. | <b>E.</b> We do not wish to answer |
|----------------------------------|----------------------------------|----------------------------------|----------------------------------|------------------------------------|

3.9. On the right side of the street there are street numbers 2, 4, ... 16, and on the left side there are numbers 1, 3, ... 13. Each house on the right side has two pine trees in the yard, and each house on the left side has one pine tree in the yard. How many pine trees are there in the street?

|                 |                 |                 |                 |                                    |
|-----------------|-----------------|-----------------|-----------------|------------------------------------|
| <b>A.</b><br>15 | <b>B.</b><br>22 | <b>C.</b><br>45 | <b>D.</b><br>23 | <b>E.</b> We do not wish to answer |
|-----------------|-----------------|-----------------|-----------------|------------------------------------|

**CORRECT ANSWER: 30 POINTS      ANSWER „E“: 0 POINTS      ELSE: -6 POINTS**

3.13. It is May 8<sup>th</sup> 2019 today and it is Wednesday. Which day of the week will it be on May 8<sup>th</sup> 2020, if we know that 2020 is a leap year?

|                      |                        |                       |                     |                                    |
|----------------------|------------------------|-----------------------|---------------------|------------------------------------|
| <b>A.</b><br>Tuesday | <b>B.</b><br>Wednesday | <b>C.</b><br>Thursday | <b>D.</b><br>Friday | <b>E.</b> We do not wish to answer |
|----------------------|------------------------|-----------------------|---------------------|------------------------------------|

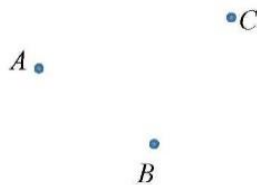
3.14. If grandma wants to plant tomatoes so that there is 8 cm between each two tomato plants, in a garden that is 416 cm long, how many tomato plants does she need?

|                 |                 |                 |                 |                                    |
|-----------------|-----------------|-----------------|-----------------|------------------------------------|
| <b>A.</b><br>52 | <b>B.</b><br>53 | <b>C.</b><br>51 | <b>D.</b><br>54 | <b>E.</b> We do not wish to answer |
|-----------------|-----------------|-----------------|-----------------|------------------------------------|

3.15. Ante (a Year 4 student) solved as many tasks as Bruno (a Year 3 student) and as Dino (a Year 3 student), but two times less than Erik (a Year 4 student). If there is a total of 40 tasks, how many were solved by Year 3 students?

|                |                 |                 |                 |                                    |
|----------------|-----------------|-----------------|-----------------|------------------------------------|
| <b>A.</b><br>8 | <b>B.</b><br>16 | <b>C.</b><br>14 | <b>D.</b><br>15 | <b>E.</b> We do not wish to answer |
|----------------|-----------------|-----------------|-----------------|------------------------------------|

3.16. Ivana wants to connect the points *A*, *B* and *C* and construct a triangle. How many different triangles can Ivana construct if she can use two coloured pencils: purple and green?



|                |                |                |                |                                    |
|----------------|----------------|----------------|----------------|------------------------------------|
| <b>A.</b><br>8 | <b>B.</b><br>6 | <b>C.</b><br>4 | <b>D.</b><br>2 | <b>E.</b> We do not wish to answer |
|----------------|----------------|----------------|----------------|------------------------------------|

3.17. When he opened a book, Luka notices that the sum of the page numbers of the left and right page is 555. What is the product of the digits of the left page number if the book covers do not have page numbers?

|                 |                  |                 |                                      |                                    |
|-----------------|------------------|-----------------|--------------------------------------|------------------------------------|
| <b>A.</b><br>28 | <b>B.</b><br>112 | <b>C.</b><br>98 | <b>D.</b><br>It cannot be determined | <b>E.</b> We do not wish to answer |
|-----------------|------------------|-----------------|--------------------------------------|------------------------------------|

3.18. How many 2-digit numbers can we write with the digits 0, 2, 4 and 6?

|                 |                 |                |                 |                                    |
|-----------------|-----------------|----------------|-----------------|------------------------------------|
| <b>A.</b><br>12 | <b>B.</b><br>16 | <b>C.</b><br>9 | <b>D.</b><br>11 | <b>E.</b> We do not wish to answer |
|-----------------|-----------------|----------------|-----------------|------------------------------------|

3.19. How many of the following statements are true?

- We can construct a triangle and a circle that do not have any common points
- We can construct a triangle and a circle that have 1 common point
- We can construct a triangle and a circle that have 2 common points
- We can construct a triangle and a circle that have 3 common points
- We can construct a triangle and a circle that have 4 common points
- We can construct a triangle and a circle that have 5 common points
- We can construct a triangle and a circle that have 6 common points
- We can construct a triangle and a circle that have 7 common points
- We can construct a triangle and a circle that have 8 common points

|                |                |                |                |                                    |
|----------------|----------------|----------------|----------------|------------------------------------|
| <b>A.</b><br>7 | <b>B.</b><br>5 | <b>C.</b><br>3 | <b>D.</b><br>6 | <b>E.</b> We do not wish to answer |
|----------------|----------------|----------------|----------------|------------------------------------|

3.20. Into how many parts is a plane divided by three infinite lines that form a triangle?

|                |                |                |                |                                    |
|----------------|----------------|----------------|----------------|------------------------------------|
| <b>A.</b><br>6 | <b>B.</b><br>5 | <b>C.</b><br>7 | <b>D.</b><br>3 | <b>E.</b> We do not wish to answer |
|----------------|----------------|----------------|----------------|------------------------------------|