Autumn Round 2019./2020.

SCHOOL	
TEAM NUMBER	
CATEGORY	**Year 5**
COMPETITION COMISSIONER	

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

ANSWERS:

Year 5					
5.1.		5.4.		5.8.	
5.2.		5.5.		5.9.	
5.3.		5.6.		5.10.	
		5.7.		5.11.	
				5.12.	
				5.13.	
				5.14.	
				5.15.	

I ♥ MATematika

CORRECT ANSWER: 10 POINTS | **ANSWER „E": 0 POINTS** | **ELSE: –2 POINTS**

5.1. How many words (that make sense and that don't) can we write using the letters M, A and T? The letters can't repeat.

A.	**B**.	**C**.	**D**.	**E**. We do not wish to answer
6	7	5	4	

5.2. Ana is an excellent student that was in Year 2 three years ago. If she continues working hard, in how many years will she be in Year 8?

A.	**B**.	**C**.	**D**.	**E**. We do not wish to answer
6	9	3	4	

5.3. When grandma gave them each and allowance of 180 kn, a sister and a brother had 527 kn saved altogether. How many kunas would they have together, if grandma gave them half the money?

A.	**B**.	**C**.	**D**. It cannot be determined	**E**. We do not wish to answer
1347 kn	437 kn	1437 kn		

CORRECT ANSWER: 20 POINTS | **ANSWER „E": 0 POINTS** | **ELSE: –4 POINTS**

5.4. How many minutes passed since 11:25 yesterday till today at 13:10?

A.	**B**.	**C**.	**D**.	**E**. We do not wish to answer
1545	Less than 1500	1505	More than 1600	

5.5. From a rectangular paper a rectangle was cut off like shown on the picture. The sides of the rectangle that was cut out are twice as short as the corresponding sides of the starting paper. How many times is the perimeter of the remaining part smaller than the perimeter of the original rectangular paper?

A.	**B**.	**C**.	**D**. It cannot be determined	**E**. We do not wish to answer
2	4	They are equal		

5.6. Continue the sequence: 3, 8, 22, 60, 164...

A.	**B**.	**C**.	**D**.	**E**. We do not wish to answer
224	448	320	502	

5.7. The houses on one side of the Cheery street are labelled by odd numbers 1, 3, ..., 55 and the houses on the other side by even numbers 2, 4, ..., 60. How many houses in the Cheery street are labelled by 2-digit numbers?

A.	B.	C.	D.	E. We do not wish to answer
50	48	47	49	

CORRECT ANSWER: 30 POINTS	**ANSWER „E": 0 POINTS**	**ELSE: –6 POINTS**

5.8. From the 1234 students of a primary school, 1010 of them had excused absences in the previous school year. If 202 students had unexcused absences, among which are 198 students who had both excused and unexcused absences, how many students did not have any absences in the previous school year?

A.	B.	C.	D.	E. We do not wish to answer
22	0	220	20	

5.9. How many numbers less than 100 are there such that the product of its digits is 0?

A.	B.	C.	D.	E. We do not wish to answer
9	10	11	20	

5.10. Write down the greatest and the smallest 4-digit number that can be written using only the digits 0, 1 and 8, so that each number contains all three of the given digits. What is the difference of these 2 numbers?

A.	B.	C.	D.	E. We do not wish to answer
7802	7888	7793	7792	

5.11. Matko the crab walks so that after 5 steps forward, he takes 2 steps backwards. Each of Matko's steps is 2 cm long. How many steps must Matko make so that he would make it from one hole to another, if the distance between the holes is 1 m?

A.	B.	C.	D.	E. We do not wish to answer
119	114	Less than 100	More than 120	

5.12. A square cut by a line into two rectangles so that the area of the greater rectangle is 5 times the area of the smaller one, and the perimeter of the greater rectangle is 80 cm greater than the perimeter of the smaller one. What is the perimeter of the given square?

A.	B. Between	C. Between	D.	E. We do not wish to answer
Less than 200 cm	200 cm and 250 cm	250 cm and 300 cm	Greater than 300 cm	

5.13. Ivana decided to save in such a way that every day, except on Sunday, she puts 50 lp into her piggy bank. If she started to save on a Monday, which day of the week will it be when she has 75 kn saved?

A. Monday	**B**. Wednesday	**C**. Friday	**D**. Saturday	**E**. We do not wish to answer

5.14. If the symbol □ is replaced by digits (they can be the same) so that the multiplication is correct, what is the sum of all the digits of the product?

$$
\begin{array}{r}
1\ \square\ 2\ \square\ \cdot\ 5\ \square \\
\hline
\square\ \square\ \square\ 1 \\
+\ 6\ 1\ 3\ 5\ 0 \\
\hline
\square\ \square\ \square\ \square\ \square
\end{array}
$$

A. 10	**B**. 13	**C**. 15	**D**. It cannot be determined	**E**. We do not wish to answer

5.15. Four girls (Nina, Mia, Julia and Tihana) and four boys (Jakov, Dario, Krešo and Robin) stand in alternating order (girls between boys) in a circle and hold hands. Jakov is next to Nina and not next to Mia. Opposite Nina is Julia next to whom is Dario. Dario is not opposite Jakov. Which of the following statements is certainly true?

A. Krešo is next to Nina	**B**. Krešo is next to Mia	**C**. Krešo is next to Julia	**D**. Krešo is next to Tihana	**E**. We do not wish to answer