

ORDINARY CALL

THEORETICAL PART: 4 points

APPLIED PART: 6 points

To pass the exam, you must obtain at least the 50% of the score corresponding to each one of the parts.

THEORETICAL PART

1. **(1 point)** Write a text (maximum 10 lines) justifying the necessity of working with Mathematics in the Primary Education.
2. **(1 point)** Define: decimal fraction, co-prime numbers, empty set, remainder of a division and irrational number. Put an example of each one of them.
3. **(1 point)** Describe briefly the three Bruner's stages, and show an example of their applicability when working with the addition of two numbers.
4. **(1 point)** Design a teaching situation to introduce the concepts of prime and composite numbers in a 4th grade course.

APPLIED PART

1. **(1 point)** In a classroom there are $\frac{2}{5}$ of the students that do not study any language. Among those that study at least one language, $\frac{1}{3}$ speaks French and the remaining part, which are 24, studies German. Calculate the number of students of the classroom. Solve the problem graphically and numerically.
2. **(1 point)** We have 24 chocolates and 42 sweets that we want to pack separately by using the smallest possible number of boxes so that there is the same number of sweets in all the boxes. How many boxes will we do and which composition will they have?
3. **(1 point)** We have bought 30 tablets for 150€ each. They give us one tablet more for free if we buy 5 tablets. How much should we sell all the tablets we have at if we want to earn the same amount of money that the one we have invested in the purchase?
4. **a) (0.5 points)** The corridor of my school is 15,405 metres long. I have walked 8'75 metres. How many steps do I need to walk to go over what remains if in each step I move forward 0'605 metres?
b) (0.5 points) Which is the irreducible fraction of metres I walked in the first part of the walk?
5. **(1 point)** Tiberio followed Emperor Augusto in 767 from the Rome foundation, which corresponds to the year 14 in the current Christian calendar. He was an emperor during 23 years until his death. He lived for 79 years. Which year was he born in, from the Rome foundation?
6. **(1 point)** From 250 people who did a test made up by three questions, there were 27 who answered correctly the three questions, 31 who answered correctly only the first and the second questions, 32 who answered correctly only the first and the third questions, 134 who answered correctly the first question, 87 the second one and 129 the third one. Calculate how many people did not answer correctly any of the three questions.

**ARGUE YOUR ANSWER IN ALL THE QUESTIONS. THE USE OF THE CALCULATOR IS NOT ALLOWED.
DELIVER ALSO THE CALCULATION SHEETS**