

**EXTRAORDINARY 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)** Let 23 be the dividend and 5 be divisor. Design two wordings based on the two approaches to the concept of division. They must be appropriate for the 3rd Primary grade.
2. **(1 point)** Define and put some examples of each one of the following concepts: empty set, least common multiple of three numbers, decimal fraction, mixed fraction, irrational number.
3. **(1 point)** Describe and prove the algorithm used to divide two decimal numbers. Apply it to the operation  $3'06:43'1$  by considering at least five decimal digits.
4. **(1 point)** Cuisenaire rods: describe them briefly and indicate how they are employed to work out the addition and the difference of natural numbers.

**APPLIED PART**

1. **(1 point)** An NGO has 48 containers of a medicine A, 84 of a medicine B and 72 of a medicine C. It wants to package them in boxes so that there is the same number of containers in each box and, in addition, it wants to employ the smallest possible number of boxes. How many boxes will it need?
2. **(1 point)** Study in detail if the number 409 is a prime or a composite number.
3. **(0,5 points)** a)  $\frac{4}{9}$  of an inheritance are shared out among 5 people. If each one of them receives 12840€, how much is the total of the inheritance?  
**(0,5 points)** b) A car has run a race of two sections which comprises the eighth and the tenth parts of the leg, respectively. If there is still 186km left to the finish line, how many km does the stage consist of?
4. **a) (0.5 points)** If we buy 8 bottles of one litre and a half of juice for 1,74€ per bottle, we spend 1,44€ less than if we buy the same quantity of juice in cans of 0,25 litres. How much does each can cost?  
**b) (0.5 points)** Find the decimal expression of the following fractions, indicating if they are exact decimals, pure recurring decimals or mixed recurring decimals:  $\frac{4}{9}$ ;  $\frac{5}{4}$ ;  $\frac{3715}{900}$ .  
**c) (0.5 points)** A curtain stick is 1'82 m. long, and they want to place in it 5 rings at the same distance from each other. What is that distance?
5. **(0,5 points)** Hypatia of Alexandria died in 415 and she lived for 45 years, whereas Euclides died in 265 B.C. and he lived for 60 years. How many years are there between both births?
6. **(1 point)** 11 teachers from a school were asked about two different brands A and B of instant coffee. The following results were obtained: 7 of them gave their positive opinion about any of the two brands, but not about both; the number of people giving positive opinions about both brands was the same that the number of people who did not give a positive opinion about any of them; 3 people expressed that they did not like brand A but they like brand B. We would like to know: a) ¿How many people gave a positive opinion about brand A? b) How many people preferred only brand B? c) How many people expressed indifference about both brands?

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