

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

1. **(1 point)** Design some activities for working the operation $38+24$ in a first-level Primary course by taking into account the three Bruner's stages of representation.
2. **(1 point)** In the process of sharing out 3 pizzas between 5 children it is possible to consider as solutions $\frac{3}{5}$ and $\frac{3}{15}$. Justify these two situations by using drawings and determine which questions are required to be answered by means of both fractions.
3. **(1 point)** Design the working of an exercise to be solved by means of the operations:
a) $3 \times (4 + 6 + 8) - 5 \times (3 + 7)$ b) g.c.d.(20,25,30)
4. **(1 points)** Define and include examples of: disjoint sets; base of a numeral system; multiple of a number; decimal fraction; irrational number.

1. **a) (1 point)** Three families have bought potatoes to a farmer. They have paid 420€ in total. Family B has bought the double of kilos that family A, and family C has bought the double of kilos that family B. If one kilo of potatoes costs 0,50€, how many kilos has family A bought?
b) (0.5 points) Initially there was one half of a cake. Pedro has eaten $\frac{3}{4}$ of the rest and after that the cat has eaten $\frac{3}{5}$ of the remaining part. What fraction of the whole cake is left now?
c) (0.5 points) Elisa has opened a bottle of one liter and she has drunk $\frac{2}{5}$ of it. Later Irene has drunk $\frac{3}{4}$ of the remaining part. Who of them has drunk more? Why?
2. **(1 point)** They have sold 3 pieces of clothing: a red one 53 meters long, a blue one 60 meters long and a green one 50 meters long. The red one costs 498.2€. What is the price of the three pieces if each meter (of each one of them) costs the same?
3. **(0.5 points)** In a winter day, the temperature was of 3 degrees below zero at 6 o'clock in the morning. At noon it was 9 degrees higher but at midnight the thermometer indicated 1 degree below zero. What is the difference of temperature between noon and midnight?
4. **(1 point)** We have done a survey to a group of sporty people and we have obtained that 115 play basketball, 35 play basketball and chess, 90 play only chess, and 105 do not play chess. How many sporty people have answered the survey? How many of them play only basketball?
5. **a) (1 point)** Theresa has a clock which sounds every hour, another one which sounds every two hours and a half, and a third one which sounds every three hours. At 9 o'clock in the morning the three clocks have sound at the same time. At what time will they sound together again?
b) (0.5 points) How many divisors do number 240 have?

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