Problems about systems of equations

1.- We need 72 meters of fence to enclose a rectangular piece of ground. The length is 4 meters longer than the width. Which are the dimensions of the piece of ground? (Solution: x=16; y=20)

2.- An exam has algebraic and geometric problems.
Nicole solves 4 algebraic problems and 2 geometric problems, getting a mark of 8 points.
Paul solves 2 algebraic problems and 4 geometric problems, getting a mark of 7 points.
If the same types of problems have the same punctuation, how many points score each problem? (Solution: x=1,5; y=1)

3.- The age of a mother is four times the age of her son. Twenty years later, the age of the mother will be the double of the age of her son. How old are they now? (Solution: x=40; y=10)

4.- We have olive oil that cost 3€ /L and sunflower oil that cost 2€/L
We wish to get 1200L of a mixture that cost 2,60€/L
How many litres of both types of oil we have to mix? (Solution: x=720L; y=480L)

5.- A hotel has double rooms (two beds) and single rooms (one bed). Altogether it has 84 rooms and 154 beds. How many rooms of each type are there in the hotel?

6.- The age of Lucy is the double of her brother Peter. Five years ago, the sum of their ages were equal to the age of Lucy nowadays. How old are each one?

7.- Frank has 44€ in coins of 1€ and bills of 5€. The number of bills is the double than the number of coins. How many coins and bills have Frank?

8.- Find two numbers in order to the triple of the first number increased in four units is equal to the second number. And the double of the second number decreased in two units is eight times the first one. Find these two numbers.

9.- In one shelf there are 20 CDs of classic music and pop music. If we have 6 pop CD's more than classic CD's, calculate the number of CDs of each kind.

10.- Sarah and Rita have a company about computer services. In one week they earn 1800€. Sarah has earned 120€ more than Rita. How much money has they earned?

11.- In a drawer we keep two kind of pens. There are boxes with 12 blue pens and boxes with 16 red pens. How many boxes of each type are there?

12.- In a greengrocery, Richard has bought 2 Kg of apples and 3 Kg of oranges that cost 8 €, meanwhile Thomas has bought 6 Kg of apples and 5 Kg of oranges that cost 18 €. How much do the Kg of apples and the oranges cost?

13.- The sum of two numbers is 14. Increasing in one unit the bigger one, we get the double of the less one. Which are the numbers?

14.- A carpenter manufactures wardrobes of two different prices: 400€ and 600€. In one week he manufactures 16 wardrobes that cost 6000€ in total. How many wardrobes of each type he manufactured?

15.- If we increase a number in 3 units we get the second one, and if we increase 2 units to the second one we get the double of the first one. Calculate the numbers.

16.- The age of a father is the triple of his daughter's age. Six years ago the age was five times the age of her. How old are they now?