

### PROPORTION AND STATISTICS TEST - 3º ESO

**Exercise 1: (0.75 points)** Fill in the gaps in the following tables and work out the value of the constant of proportion, knowing that the magnitudes involved are directly proportional:

18		9	27		
	5	2		17	10

**Exercise 2: (1 point)** Find the selling price per kilo of a nuts mixture made from 300 grams of hazelnuts that costs 12€/kg and 200 grams of almonds that costs 15€/kg.

**Exercise 3: (1 point)** Split €2790 in an inversely proportional way to 1, 3 and 7

**Exercise 4: (1 point)** With twenty-four bags of fodder I can feed seventeen sheep during twenty days. How long can I feed thirty sheep with eighteen bags of fodder?

**Exercise 5: (1.25 points)** The price of a tablet was 225€. A certain store was accused of foul play.

- If before Black Friday they increased the price by 15%, what was the new price?
- What's the price after a 25% discount on Black Friday?
- What's the real percentage discount?

**Exercise 6: (1 point)** I want to know if teenagers from Córdoba are going abroad this summer, and where, so I asked all the students from Bachelorette from La Salle. Classify the random variable, indicate the population and the sample and tell me if my study is a valid one.

**Exercise 7: (2.25 points)** Given the following table showing the values and frequencies of a certain random variable

$x_i$	1	2	3	4	5
$f_i$	3	5	7	8	2

- Classify the variable (0.25)
- The percentage corresponding to each value of the variable (0.5)
- Pearson's coefficient of variation (1)
- The bar diagram, the histogram and the frequency polygon (0.5)

**Exercise 8: (1.75 points)** Given the following table showing the values and frequencies of a certain random variable

$x_i$	[1,5]	(5,9]	(9,13]	(13,17]
$f_i$	1	4	6	3

- Classify the variable (0.25)
- The range (0.25)
- The measures of central tendency (0.75)
- The frequency polygon (0.5)