

EXAMEN PROPORCIONALIDAD Y ESTADÍSTICA - 3º ESO

Exercise 1: (1.25 points) Fill in the gaps in the following tables knowing that the magnitudes involved are:

a) Directly proportional

10		7	15		35
	6	2		20	

b) Inversely proportional

	7	8		30	
4	1.5		9.5		20

Find also the value of the constant of proportionality k in each case.

Exercise 2: (1.25 points) Split €2450 in a directly proportional way to 3, 5 and 6.

Exercise 3: (1.25 points) Split €78000 in an inversely proportional way to 2, 5 and 6.

Exercise 4: (1.25 points) Seventeen workers need to work eight hours a day for a week in order to assemble eight hundred and fifty TV sets. How many hours a day will they have to work next week if we have an order for one thousand TV sets and we hire three more workers?

Exercise 5: (1 point) Clasifica las siguientes variables aleatorias:

- Cantidad de sobrasada que me pongo cada mañana en la tostada
- Número de neuronas funcionales que me quedan en el cerebro
- Bebida que pido cuando me quedo a comer en el bar porque tengo tutoría
- Número de asistentes al Betis-Barça la semana que viene

Exercise 6: (2 points) Given the following table showing the values and frequencies of a certain random variable

x_i	0	1	2	4	5
f_i	5	8	6	8	3

Work out:

- The percentage corresponding to each value of the variable
- The measures of central tendency
- Pearson's coefficient of variation
- The bar diagram, the histogram and the frequency polygon

Exercise 7: (2 points) Given the following table showing the values and frequencies of a certain random variable

x_i	[0,4]	(4,8]	(8,12]	(12,16]
f_i	6	9	4	3

Work out:

- The mode
- The measures of dispersion
- The bar diagram, the histogram and the frequency polygon