Exercise 1: (1 point) I want to know the most common color of vehicles nowadays, so last Saturday I took a walk around the neighborhood and checked the color of two hundred cars. Indicate the population, the sample, classify the variable and tell me, do you think my study is a representative one?

Population: all the cars in the world, I guess

Sample: 200 cars in this city / neighborhood

Variable: Qualitative

I don't think that you got it right since the favorite color of cars could depend on the country

Exercise 2: (2.25 points) Given the following table showing the values and frequencies of a certain random variable

x_i	1	2	4	5	6
f_i	5	10	6	10	3
%	15	29	18	29	9

Work out:
  a) The percentage corresponding to each value of the variable (0.5)
  b) The mode (0.25) $Mo = 2$ and 5
  c) The measures of dispersion (1.25)
     $R = 5$ $\sigma^2 = 2.84$ $\sigma = 1.69$ $CV = 0.49$
  d) Classify the variable (0.25) Quantitative discrete

Exercise 3: (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	9	5	7	8

Work out:
  a) The median (0.75) $Me = (8, 12]$
  b) Pearson's coefficient of variation (1) $CV = 0.6$
  c) Classify the variable (0.25) Quantitative continuous

Exercise 4: (1 point) Divide €1250 in a directly proportional way to 3, 5 and 8.

$x = 234.38€$ $y = 390.63€$ $z = 625€$

Exercise 5: (1.25 points) Divide €2500 in an inversely proportional way to 2, 8 and 9.

$e = 1698.11€$ $y = 424.53€$ $z = 377.36€$

Exercise 6: (1.25 points) A Christmas Candles factory with twelve machines needs five days to produce 9000 candles. How many machines would they have to sell/buy if the want to produce 15750 candles in a week?

They will have to buy 3 machines

Exercise 7: (1.25 points) Six people need to work seven hours a day for ten days to replant all the trees in a forest that was burned last summer. If nine people were going to work for eight days, how many hours a day would they have to work? Round the answer to hours, minutes and seconds if needed.

They will have to work 5 hours and 50 minutes a day