



PROPORTION AND RATIONAL NUMBERS TEST

2° ESO



Exercise 1: (1.5 ptos)

- There are 1216 million people living in Africa, but only 7% of them have been vaccinated so far. How many people are still waiting to be vaccinated?
- Due to the new coronavirus variants, as of 1st August 2021 Pfizer increased the price of a dose of their vaccine by 25%, so that the actual price is of 19.5€. What was the price before?

Exercise 2: (1.75 ptos) Fill in the gaps in these tables and find the value of the constant of proportion, knowing that they are:

a) Directly proportional

4	72	63	12	27	1.2
	8				

b) Inversely proportional

8	2	1	16	2.7	0.5
			4		

Exercise 3: (1.25 ptos) Classify the following decimal numbers and the turn them into fractions:

- $5.\overline{3274} =$
- $\phi =$
- $0.33333 =$
- $2.\overline{439} =$

Exercise 4: (1.5 ptos) Write the following numbers using scientific notation:

- The radius of the SARS-CoV-2, 0.000 000 062 5 m
- The radius of the Milky Way, 499 961 000 000 000 000 000 m
- $19542.437 \cdot 10^{-9} =$
- $0.000053278 \cdot 10^{-3} =$

Exercise 5: (1 pto) Divide 1260€ in a directly proportional way to 3, 5 and 7

Exercise 6: (1 pto) I've been wanting for a long time to buy me a present, jeez I deserve it, so this Black Friday I decided that I had waited long enough. The original price was of 39.9€, but now it had a discount of 15%, and then I got another 3€ discount because I was paying with a certain credit card. How much am I paying in the end? Çok mutluyum ben.

Exercise 7: (2 ptos)

- Six people need two hours and a half to plant a bunch of trees. How long would eight people need? Express the answer using hours, minutes and seconds
- 750 grams of Christmas sweets have a price of 2.95€. What would be the price of two kilos and a half?

