FUNCTIONS – 1º ESO

Exercise 1: **(0.75 ptos)** Plot a graph that doesn't represent a function

Exercise 2: **(3.5 ptos)** Plot the graph of the following functions:

a) $y = 3x + 2$ (0.5)

b) $y = \frac{x}{3}$ (0.75)

c) $y = 1 - 2x$ (0.75)

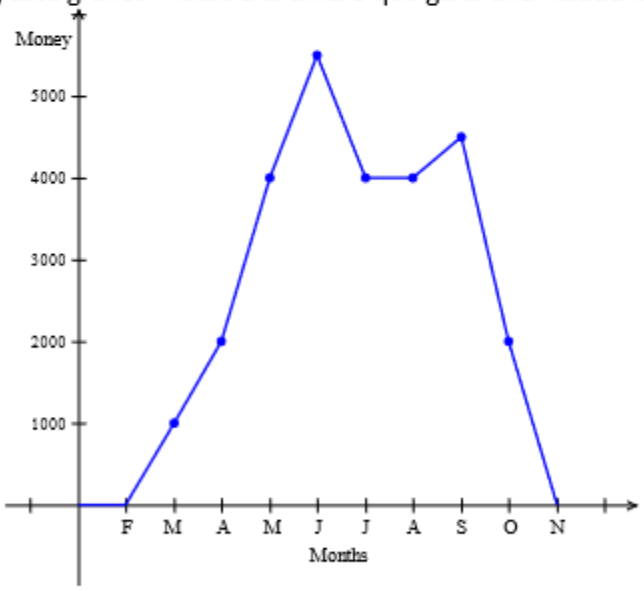
d) $y = -4$ (0.5)

e) $y = x^2 - 2$ (Use the table given below) (1)

x	-3	-2	-1	0	1	2	3
y							

Exercise 3: **(1.75 ptos)** Plot a function that describes the following situation:
I get out of my house to go to the swimming pool but then I realize that I have forgotten the bathing suit and I have to go back. I go out again but when I get to the pool it is closed. I wait for half an hour and then I decide to go to the supermarket to get a zero soda and a bag of chips and then to the ice cream parlor to buy an ice cream cone. On my way back home I throw up because I am stuffed and then a policeman appears and takes me to the doctor. I have to stay for the night.

Exercise 4: **(2 points)** Este gráfico muestra el dinero que gana una heladería a lo largo del año



a) ¿Cuánto dinero ganaron en abril? ¿Y en septiembre?
b) ¿En qué meses del año ganaron 4000€?
c) ¿Cuándo ganaron más dinero? ¿Cuánto fue?
d) ¿Por qué ganan menos dinero en julio y agosto, si hace más calor?
e) ¿De qué me pido el helado?

Exercise 5: (2 points) I want to rent a car for my holidays in Scotland. First I have to pay 30€ to get the car, and then 18€ for each day that I have it

a) Write the function that describes the relationship between the days I have the car and the money I need. What are the independent and dependent variables?

b) I need the car for a week. How much do I have to pay?

c) I have 150€. How long can I have the car? How much money is left?

d) If I pay 275€ I can have the car for 15 days. Is it worth it?