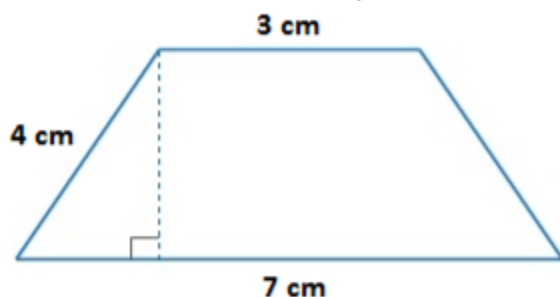
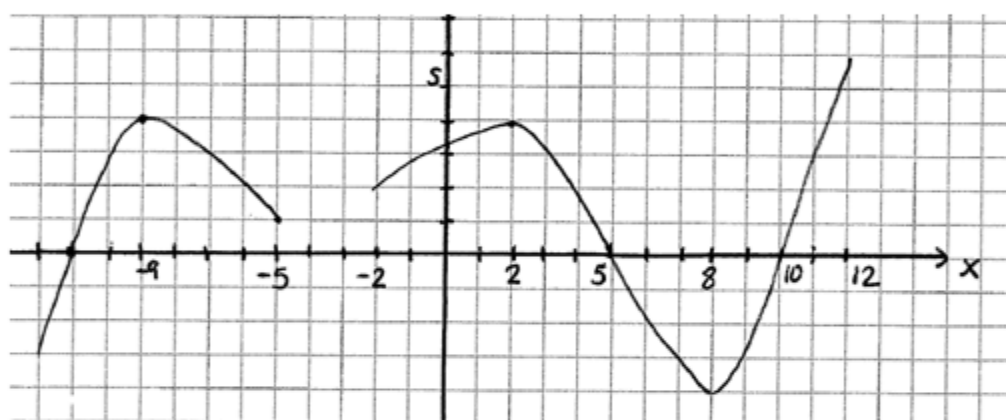


FUNCTIONS, THALES AND PYTHAGORAS TEST - 2º ESO

Exercise 1: (1 point) Find the area of this isosceles trapezium



Exercise 2: (2 points) Given the following graph of a certain function:



- Indicate its domain and its image. Is it a continuous function? Why?
- Determine the points where the function crosses the axes
- Study its monotony
- Study the extrema

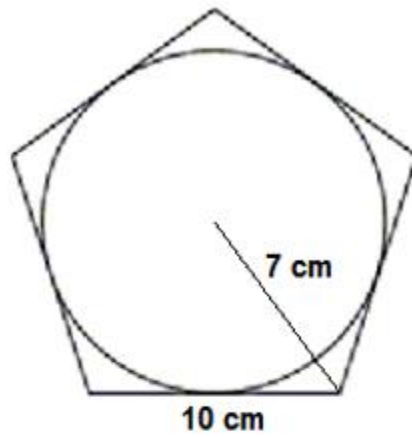
Exercise 3: (1 point) Work out the graph of a function that fulfills all the following characteristics at the same time:

- Its domain is $(-12, 10)$
- It crosses the axes at the points $(-9, 0)$, $(6, 0)$, and $(0, 5)$
- It has minima at $x = -10$, $x = -4$, $x = 10$ and maxima at $x = -7$, $x = 3$ and $x = 11$

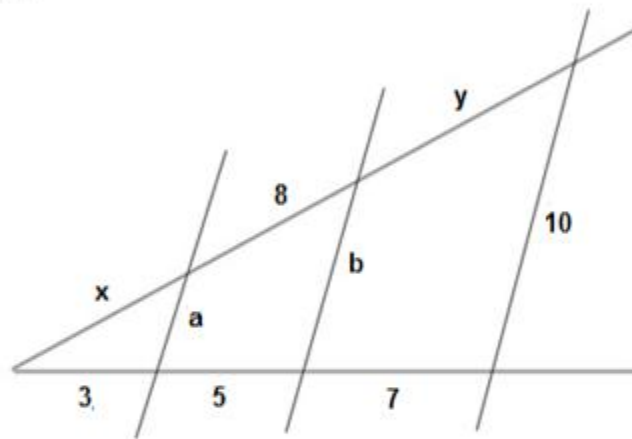
Exercise 4: (2 points) Plot the graphs of the following functions:

- $y = 2x - 3$
- $y = 5$
- $y = x^2 - 4x$ (create a table where x moves from -1 to 5)

Exercise 5: (1.5 points) Find the area between the circle and the pentagon, if its side has a length of 10 cm and the length of the radius is 7 cm



Exercise 6: (1.75 points) Find the values of the indeterminates in the following figure and the constant of proportion



Exercise 7: (0.75 points) Find the height of the tree knowing that the triangles are similar

