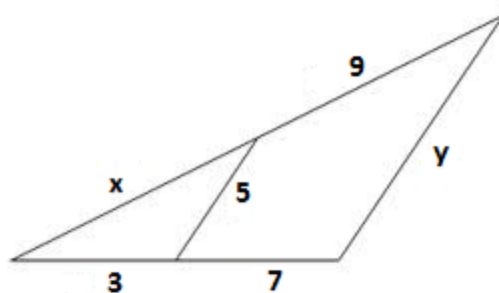


EXAMEN GLOBAL 3ª EVALUACIÓN - 2º ESO

Exercise 1: (1 point) Work out the values of x and y in the following figure:



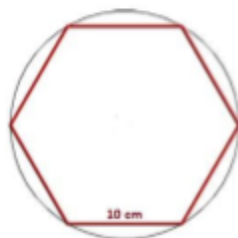
Exercise 2: (3.25 points) Solve and classify the following simultaneous equations using the indicated method:

- a) $\left. \begin{array}{l} x + 5y = 2 \\ 2x - 3y = 17 \end{array} \right\}$ Elimination
- b) $\left. \begin{array}{l} x + y = 4 \\ x + 2y = 1 \end{array} \right\}$ Graphically
- c) $\left. \begin{array}{l} 3x + y = 4 \\ 9x + 3y = 12 \end{array} \right\}$ Substitution
- d) $\left. \begin{array}{l} 3x + 4y = 9 \\ 5x - 3y = 44 \end{array} \right\}$

Exercise 3: (1.25 points) Plot the graph of the following functions:

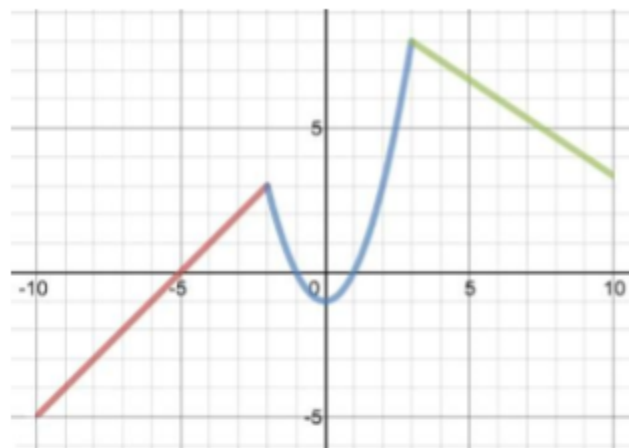
- a) $y = 5 - 2x$
- b) $y = x^2 - 2x$

Exercise 4: (1.5 points) Work out the area of the region between a circle and a regular hexagon if its side is 10 cm.



Exercise 5: (1 point) En mi granja del iPad tengo manzanos y naranjos (de los de mentira). En total he plantado 47 árboles. Cada manzano da 5kg de fruta al día, y los naranjos dan 3kg. Si al final de la jornada tengo 183kg de fruta (de la de mentira), ¿cuántos árboles de cada tipo he plantado?

Exercise 6: (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