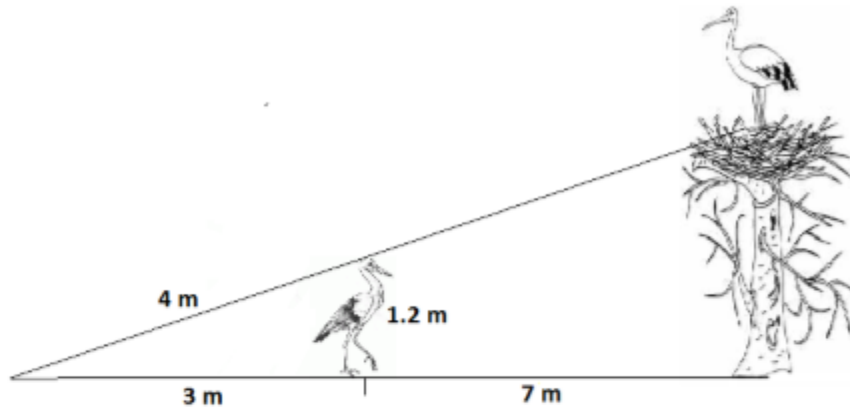
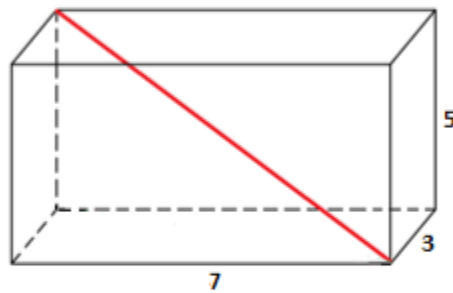


EXAMEN GLOBAL 3ª EVALUACIÓN - 3º ESO

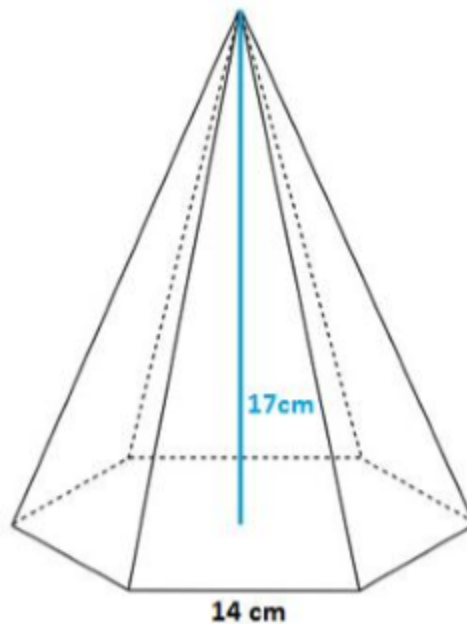
Exercise 1: (1.5 points) What distance has to fly the stork to reach the nest? What's the height of the nest? Note: the triangles are similar.



Exercise 2: (1.25 points) Work out the length of the axial diagonal of this cuboid if the lengths are expressed in cm



Exercise 3: (1.75 points) Work out the area of this regular hexagonal pyramid



Exercise 4: (1.25 points)

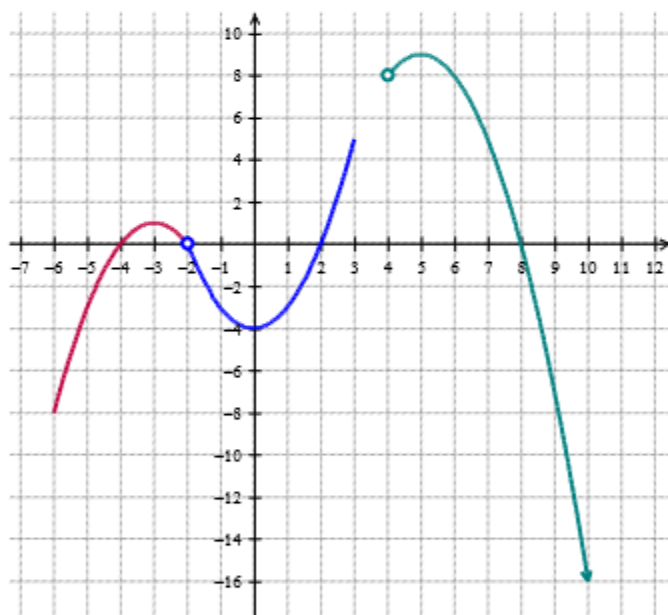
- a) Work out the equation of the straight line that passes through the points $P(4, -5)$ and $Q(6, 1)$
- b) Work out the equation of the straight line that is parallel to $3x - 6y + 1 = 0$ and passes through the point $A(3, -1)$. What's the value of the slope?

Exercise 5: (1.25 point) Plot the graph of the piecewise function given below

$$f(x) = \begin{cases} 2 - x & x < 4 \\ x^2 - 8x + 12 & x > 4 \end{cases}$$

Exercise 6: (1.25 points) Plot the graph of the function $f(x) = x^2 - 7x + 6$, indicating its direction, studying the points where it crosses the axes and finding the coordinates of the vertex. Construct also a table with at least a couple of values.

Exercise 7: (1.75 points) Given the following graph of a certain function:



- a) Indicate its domain and its image
- b) Determine the points where the function crosses the axes
- c) Study its monotony
- d) Study the local and global extrema