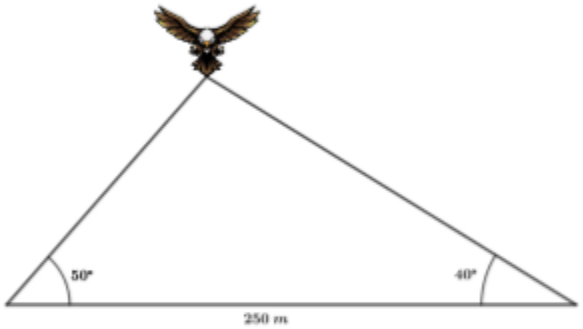
FUNCTIONS AND TRIGONOMETRY TEST

4' ESO

Exercise 1: (1.5 points) Find the height of the eagle knowing that the distance between both observation points is $250\ \mathrm{m}$ and the angles measure $40°$ and $50°$



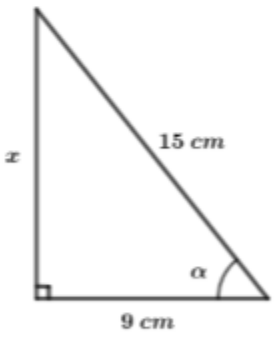
Exercise 2: (1.5 points) If $\tan\alpha = 1.5$ find the values of the other five trigonometric functions and the value of angle α expressed in degrees, minutes and seconds

Exercise 3: (2.75 points)

a) (1.25) Find the area of a nonagon with sides of length 17 cm

b) (1.5) Find the area and the perimeter of an isosceles triangle if the equal angles measure 65° and the length of the base is 20 cm

Exercise 4: (0.75 points) Find the values of α and the missing side:



Exercise 5: (1.25 points) Plot the graph of the function $f(x) = \dfrac{6}{x-3}$

Turn the page around.

Exercise 6: (2.25 points) Plot the piecewise function:

$$f(x)=\begin{cases}\dfrac{1}{x} & x<0\\ 2^{x} & 0<x\le 3\\ 11-x & 3<x<11\end{cases}$$