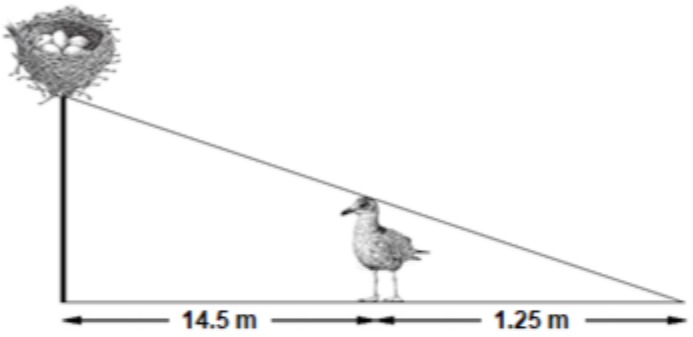
INTERCEPT AND PYTHAGORAS' THEOREMS TEST - 2° ESO

Exercise 1: **(0.75 ptos)** Enunciate Pythagoras' theorem:

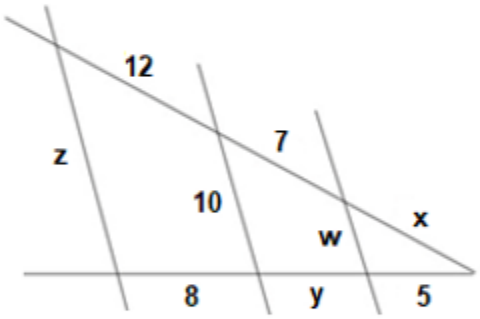
Exercise 2: **(1 pto)** Find the height of the nest knowing that my seagull is 57 cm high:



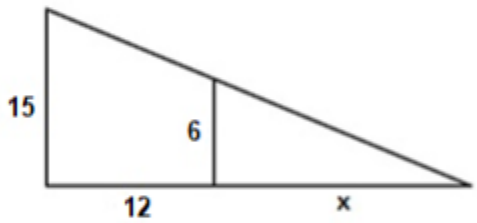
$h = 7.18$ m

Exercise 3: **(2.5 ptos)** Find the values of the indeterminates:

a)



b)



$x = 8$

$x = 7.5$; $y = 4.67$; $z = 18.28$; $w = 5.17$

Exercise 4: **(1 pto)** Find the distance I am standing from the base of the Eiffel Tower, on a sunny summer day, knowing that it has a height of 300 m, my height is of 1.53 m and at that moment my shadow measures 1.1 m 214.59 m

Exercise 5: **(1.25 ptos)** Find the area of an isosceles trapezium knowing that its bases measure 24 cm and 37 cm and the slanted side has a length of 10 cm $A = 231.8$ cm^2

Exercise 6: **(1.5 ptos)** Find the sides of a right-angled triangle knowing that they measure $x-4$ cm, $x+2$ cm and $x-1$ cm $x = 13$ cm

Exercise 7: **(0.75 ptos)** Find the area of the shadowed region between the square and the circle:

$A = 48.29 \text{ cm}^2$

Exercise 8: **(1.25 ptos)** Find the area of the shadowed region if the side of the regular heptagon measures 6 cm and its radius measures 7 cm:

$A = 21.12 \text{ cm}^2$

PS: My seagull wants to sue me because I won't leave her alone. She says that this is on the verge of exploitation :(