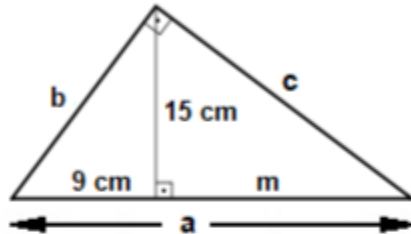




THIRD TERM GLOBAL TEST – 4° ESO



Exercise 1: (1 pto) Find the values of the sides of the triangle using the right triangle altitude theorems:



Exercise 2: (0.75 ptos) Find the axial diagonal of a cuboid if the sides have lengths of 10 cm, 12 cm and 15 cm

Exercise 3: (2.25 ptos)

- Write $\vec{w} = (-1, -13)$ as a linear combination of $\vec{u} = (2, -3)$ and $\vec{v} = (5, 7)$
- Find the symmetric of the point $A(-7, 3)$ with respect to $P(1, -4)$
- Find the value of k so that the vectors $\vec{u} = (k+4, k-8)$ and $\vec{v} = (k+2, 7)$ are orthogonal

Exercise 4: (1.75 ptos) Given the straight line $r \equiv 7x - 5y - 4 = 0$

- Write the continuous and parametric equations of r
- Find the general equation of a straight line r' that's perpendicular to r and goes through the point $P(1, 7)$

Exercise 5: (1.5 ptos) Given two events A and B so that $P(A) = 0.4$, $P(\overline{B}) = 0.8$, $P(A \cup B) = 0.42$

- $P(A \cap B) =$
- $P(B / A) =$
- Are A and B independent events? Why?

Exercise 6: (1.25 ptos) I get two cards without replacement from a Spanish deck of cards. Find the probability that:

- I get two cup cards
- I get a seven and an ace
- I get at least a horse

Exercise 7: (1.5 ptos) 13% of the jobs in Andalusia are related to tourism and 53% of them have an unlimited contract. 35% of the people working on some other activities have a temporary contract. Taken a random working person, find the probability that:

- They have an unlimited contract
- They have a tourism-related job, knowing that they have a temporary contract

