

Subject 27

Please, don't write on the exam paper.

Question 1

A class consists of 60% men and 40% women. Of the men, 25% are blond, while 45% of the women are blond.

Knowing that a randomly selected student is found to be blond, what is the probability that this student is a man?

Question 2

From point A, an observer notes that the angle of elevation of the top of a tower (C,D) is α (degrees) and from point B the angle of elevation is β (degrees).

Points A, B and C (the bottom of the tower) are collinear.

The distance between A and B is d .

Express the height h of the tower in terms of d and angles α and β .

