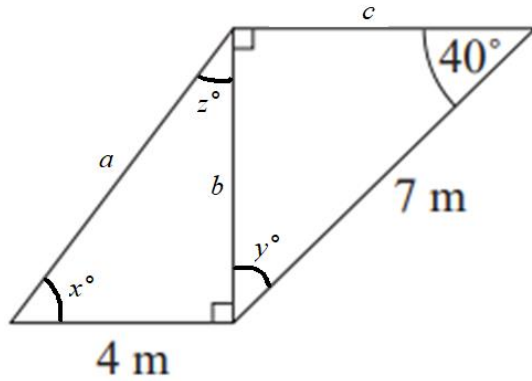


Functional Mathematics

Task 2 - Trigonometry

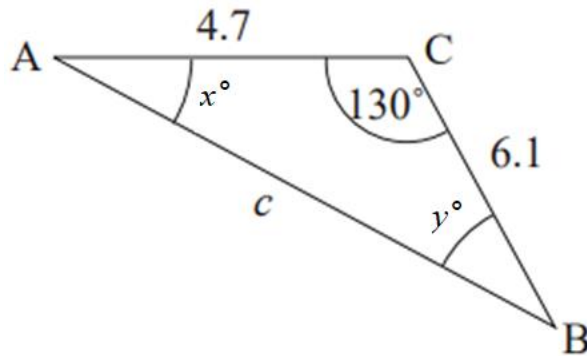
Due date:

1. Find all the unknowns of the triangle shown?



[5 marks]

2. Using the laws of sines and cosines, find all the unknowns of the triangle shown?



[5 marks]

Bonus Task

3. When the top of a building is viewed from point A, 2000 m from the ground, the angle of depression θ is equal to 15° and when it is viewed from point B on the ground the angle of elevation Φ is equal to 10° . If points A and B are on the same vertical line, find the height h of the building.
4. Two students want to determine the heights of two buildings. They stand on the roof of the shorter building. The students use a clinometer to measure the angle of elevation of the top of the taller building. The angle is 44° . From the same position, the students measure the angle of depression of the base of the taller building. The angle is 53° . The students then measure the horizontal distance between the two buildings. The distance is 18.0 m. How tall is each building?

[2.5 marks]

[2.5 marks]