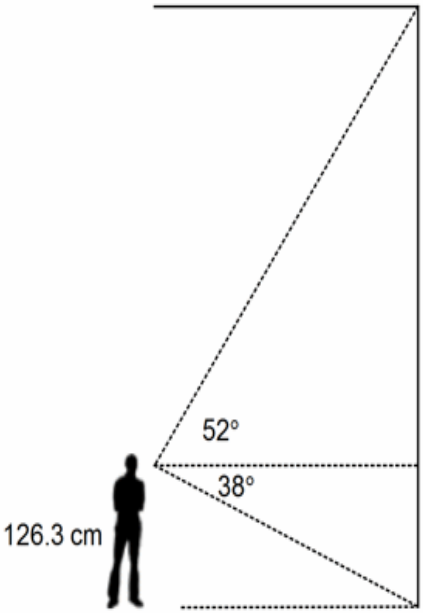
Extended Worksheet Review 19/12/2021
Calvin Grant

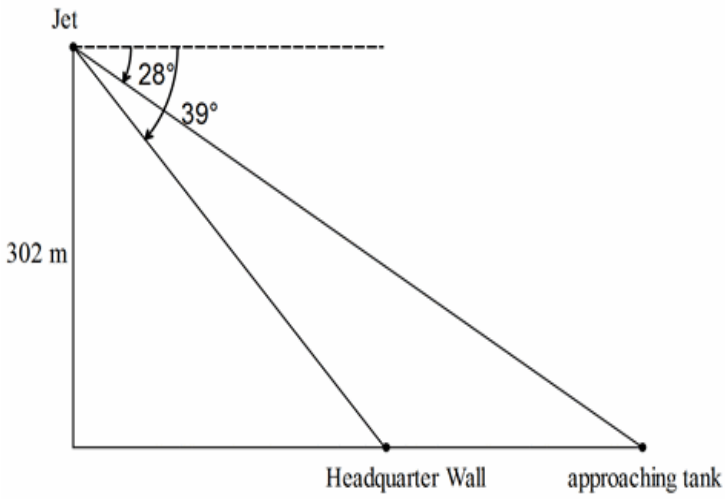
Question 1

Harry is 126.3 cm tall. The angle of depression to the lowest point on the wall of his room is 38° and the angle of elevation to the highest point is 52°. How high is the ceiling of his room?



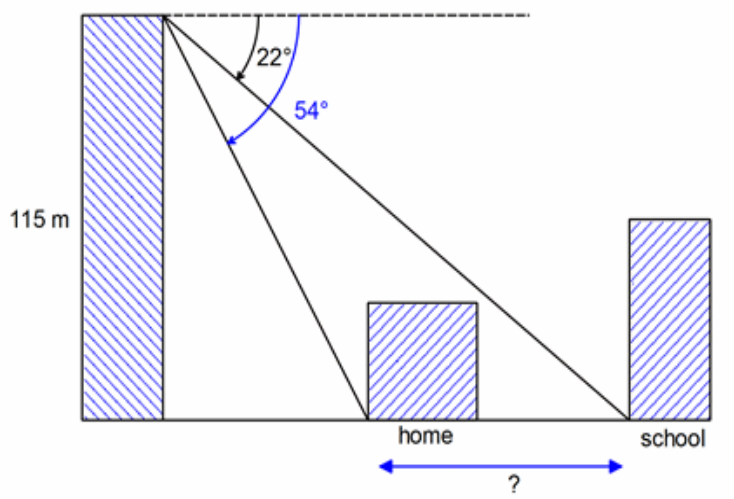
Question 2

A jet is flying above a military headquarters for defensive purposes. The height of the jet is 302 m above the ground. At one instant the jet takes a snapshot of an approaching tank and sends it to headquarters. The angle of depression to the approaching tank is 28° while the angle of depression to the headquarter wall is 39°. How far is the tank from the headquarters?



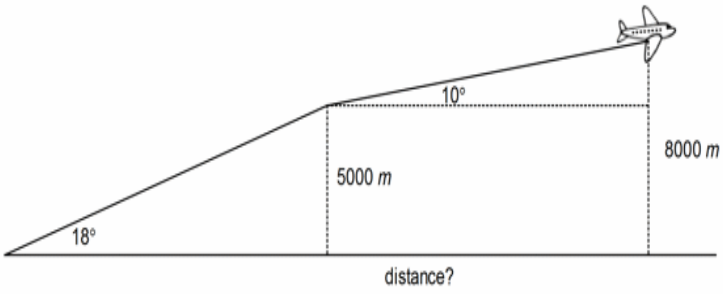
Question 3

Gina is standing on the rooftop of the tallest building in her city. The building is 115 metres tall. The angle of depression to her school is 22° while the angle of depression to her home is 54°. What is the distance between Gina's home and school?



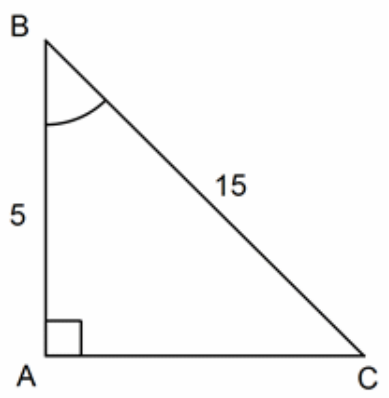
Question 4

At take-off, a jet rises at an angle of 18º with the ground. It rises until its height is 5000 metres. The pilot then changes the angle of inclination to 10˚ until he is at an altitude of 8000 metres. Find the horizontal distance it travelled.



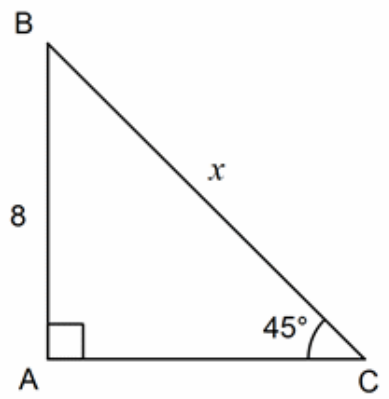
Question 5

Find $\angle ABC$ in ΔABC.



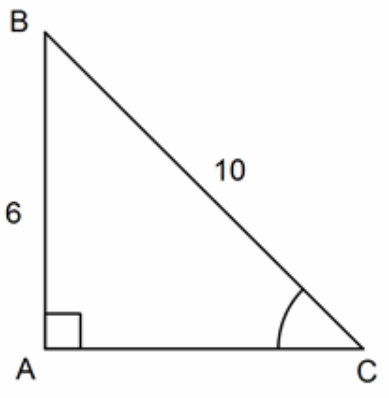
Question 6

Find $m\overline{BC}$ in ΔABC.



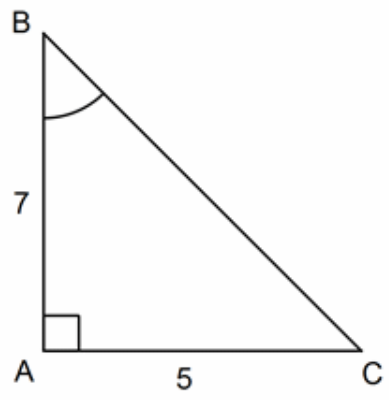
Question 7

Find $\angle ACB$ in ΔABC.



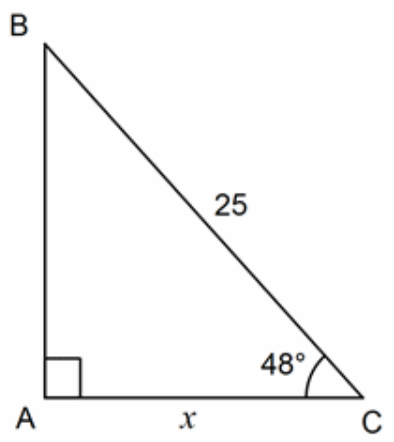
Question 8

Find $\angle ABC$ in ΔABC.



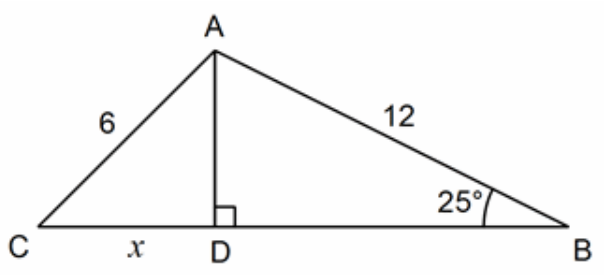
Question 9

Find $m\overline{AC}$ in ΔABC.



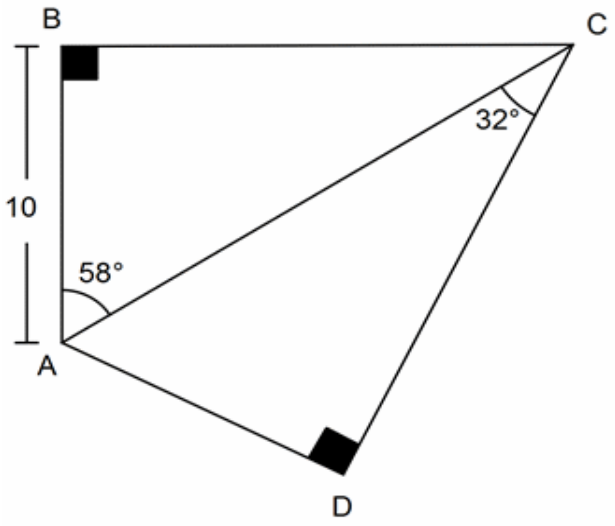
Question 10

Given that $\angle ABD = 25°$. Find $m\overline{CD}$ in the diagram below.



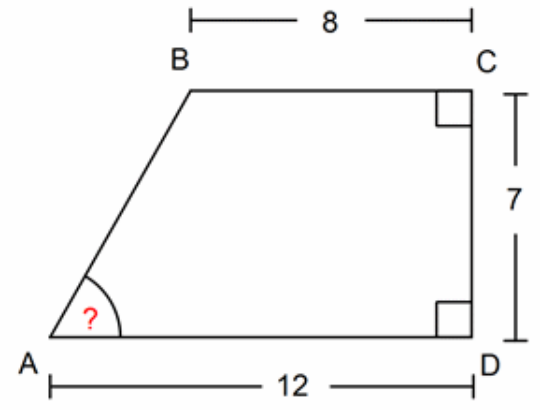
Question 11

Find $m\overline{AD}$ if ΔABC and ΔADC are right triangles.



Question 12

Find $\angle BAD$ in the right trapezoid below.



Question 13

Find $m\overline{BE}$ if ΔABC and ΔDBE are right triangles.