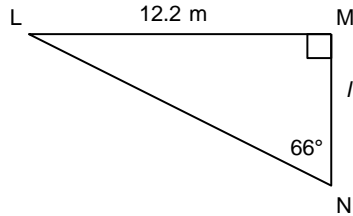


Mathematics 1201
Assignment 2 (Unit 2)

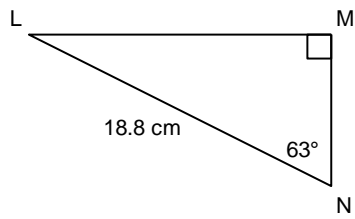
1. Determine the length of side l to the nearest tenth of a metre.



2. A ladder leans against a wall. The base of the ladder is on level ground 1.2 m from the wall. The angle between the ladder and the ground is 70° . How far up the wall does the ladder reach, to the nearest tenth of a metre?

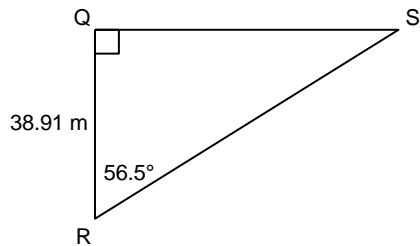
3. A flagpole casts a shadow that is 21 m long when the angle between the sun's rays and the ground is 48° . Determine the height of the flagpole, to the nearest metre.

4. Determine the length of MN to the nearest tenth of a centimetre.

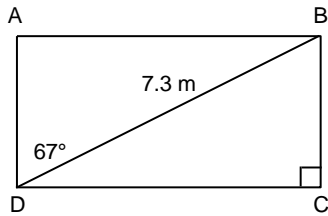


5. From the start of a runway, the angle of elevation of an approaching airplane is 17.5° . At this time, the plane is flying at an altitude of 7.7 km. How far is the plane from the start of the runway to the nearest tenth of a kilometre?

6. A surveyor made the measurements shown in the diagram. Determine the distance from R to S, to the nearest hundredth of a metre.



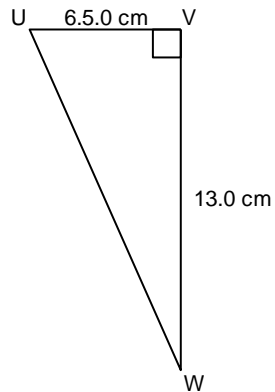
7. Calculate the length of this rectangle to the nearest tenth of a metre.



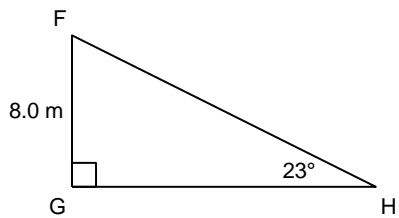
8. A guy wire is attached to a tower at a point that is 7.5 m above the ground. The angle of inclination of the wire is 67° . Determine the length of the wire to the nearest tenth of a metre.

9. A tree broke 14 ft. above the ground. The top of the tree now touches the level ground and the trunk is still partially attached to the stump. The angle of inclination of the tree is 43° . To the nearest foot, determine the height of the tree before it broke.

10. Solve this right triangle. Give the measures to the nearest tenth.

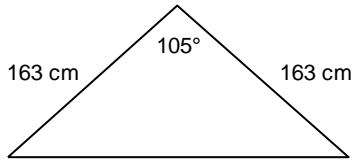


11. Solve this right triangle. Give the measures to the nearest tenth.

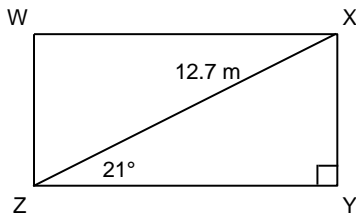


12. A water taxi leaves its dock, and travels 7 km due north to pick up medical supplies. It then travels 15 km due east to drop off the supplies at a hospital. To the nearest degree, what is the measure of the angle between the path it took due east and the path it will take to return directly to its dock?

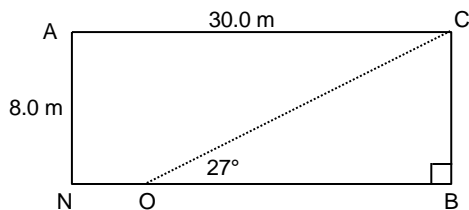
13. The front of a tent has the shape of an isosceles triangle with equal sides 163 cm long. The measure of the angle at the peak of the tent is 105° . Calculate the maximum headroom in the tent to the nearest centimetre.



14. Determine the area of this rectangle to the nearest tenth of a square metre.



15. A rectangular lawn has the dimensions shown. A gardener wants to use an electric lawnmower to mow the lawn. The electrical outlet is located at O.



- Determine the length of cord needed to reach corner C, to the nearest tenth of a metre.
- Determine the distance between the electrical outlet and corner N, to the nearest tenth of a metre.

