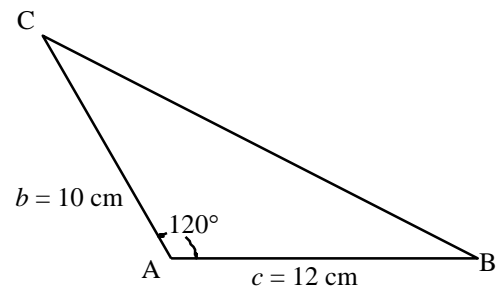
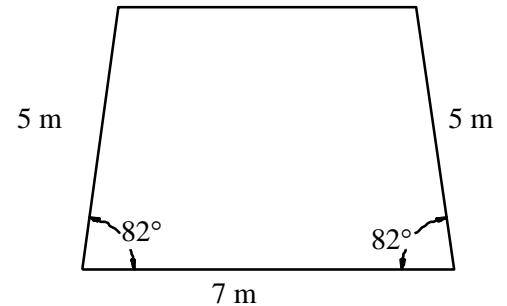


- 1 In this triangle, $b = 10$ cm, $c = 12$ cm and $\angle BAC = 120^\circ$. **Determine the measure of side BC.**

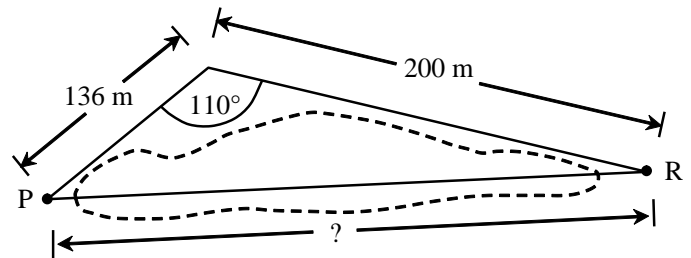


- 2 A metal frame is in the shape of an isosceles trapezoid. The length of the long base is 7 m, that of the two non-parallel sides is 5 m and the measure of the angles at the base is 82° . **What is the length of a metal wire which is attached to two diagonally opposite corners?**

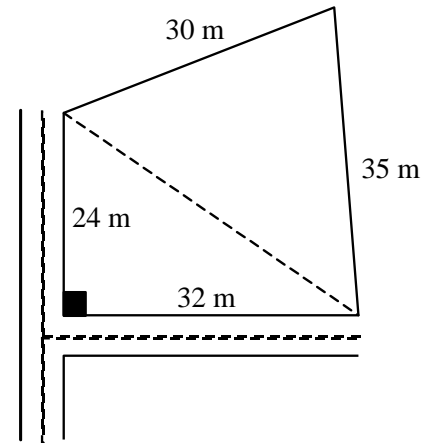


- 3 A triangular piece of land, bounded by 3 streets, has a side of 300 metres along one street, 250 metres along the second street and 420 metres along the third. **What is the measure of the angle opposite the 250m street?**

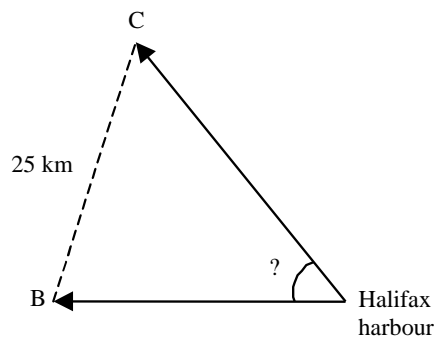
- 4 A land surveyor must determine the distance between two cottages located on either side of a pond. The surveyor draws the diagram, which includes the measurements. In this diagram, the cottages are represented by points P and R. **What is the distance between the two cottages?**



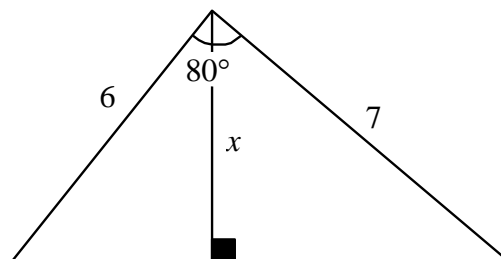
- 5 The sides of a plot of land in the shape of a quadrilateral measure 24 metres, 30 metres, 32 metres and 35 metres respectively. The 24-metres and the 32-metres sides form perpendicular streets. **What is the measure of the angle opposite the right angle?**



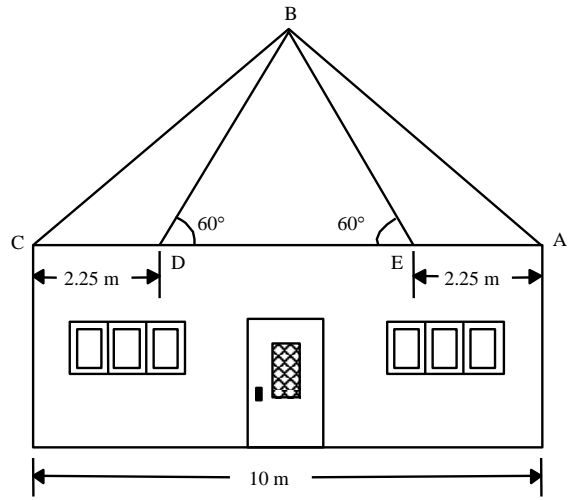
- 6 Two ships leave the Halifax harbour at the same time. The first one (B) travels at a speed of 16 km/h and the second one (C) at a speed of 12 km/h. Maintaining their initial direction, the ships are 25 km apart after two hours. **What was the measure of the angle between these two ships on their departure from Halifax harbour?**



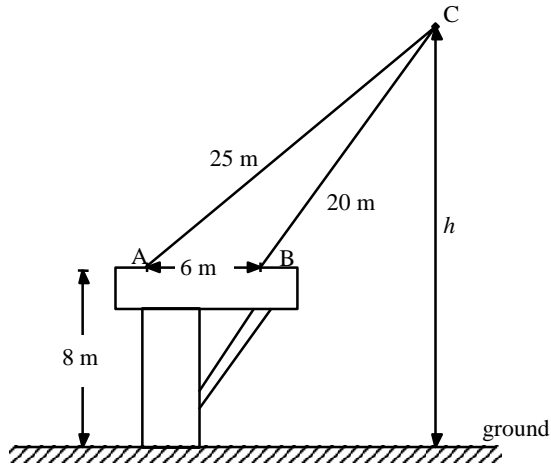
- 7 Find the value of x given the data in the figure.



8 The illustration of the house shows one truss that was used in the construction of the roof. **What is the length of rafter AB?**



9 The Port of Montreal uses a special stationary crane to unload ships. At the end of the day, the operator leaves the crane in the position illustrated by the diagram below. **How far above the ground is point C, the end of the crane?**



10 Given triangle ABC shown on the right. **What is the measure of angle C?**

