

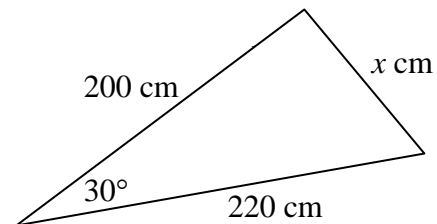
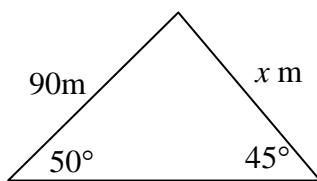
Ex 23 Trigonometry in Triangles*Section A (Non-calculator)*

- 1 $18 + 9 \times 2.5$
- 2 Evaluate $3p^2q$, when $p = -2$ and $q = -7$

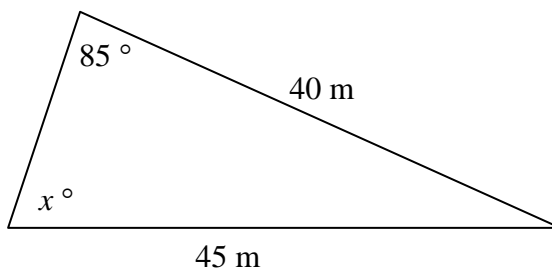
Section B (Knowledge)

- 3 In triangle ABC, $AB = 7\text{cm}$, $AC = 5\text{cm}$ and $BC = 4\text{cm}$. Calculate the sizes of angle ABC and hence find the area of the triangle.
- 4 Find x in each of the following questions:-

a)

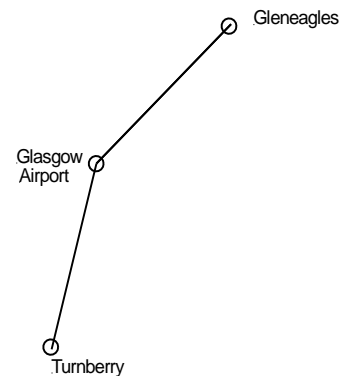


c)

*Section C (Reasoning)*

- 5 The diagram shows the positions of Glasgow Airport and two hotels at which helicopters can land. From the airport, Gleneagles hotel is 37 miles on a bearing of 044° and Turnberry hotel is 42 miles on a bearing of 203° .

A helicopter is to take passengers to Gleneagles then fly direct to Turnberry to collect more passengers. What is the distance from Gleneagles to Turnberry?



- 6 A disco has two lights mounted on its outside wall. The lights have been fitted at points P and Q and are 9.8m apart. The beams from these lights meet at point R on the building opposite. Angle QPR is 35° and angle PQR is 40° .

How far apart are the two buildings?

