11. The diagram shows the side view of a dormer window on the roof of a house. The lengths AB and BC are 138 cm and 177 cm respectively. Calculate the angle which the roof makes with the horizontal, marked as x on the diagram.

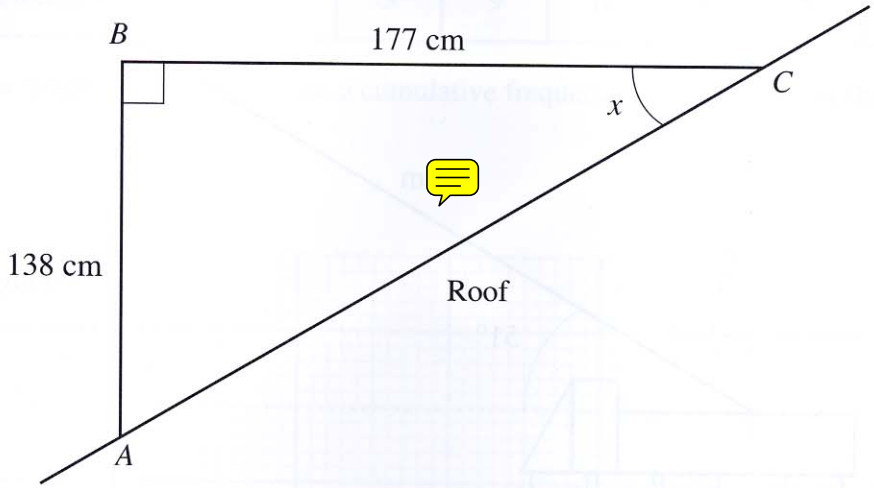

Diagram not drawn to scale.

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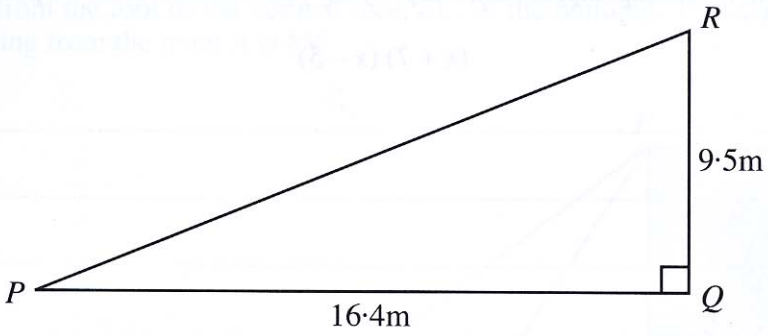

Diagram not drawn to scale.

PQR is a right-angled triangle in which $PQ = 16{\cdot}4$ metres and $QR = 9{\cdot}5$ metres. Calculate the length of *PR*.

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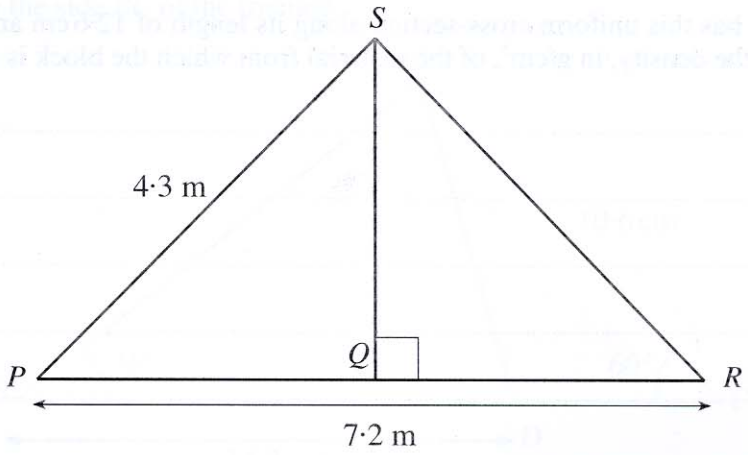

Diagram not drawn to scale.

PQRS represents the symmetrical cross-section of the roof of a house, where *SQ* is perpendicular to *PR* and *Q* is the mid-point of *PR*. The width of the house, *PR*, is 7·2 m and the length of the rafter, *PS*, is 4·3 m. Calculate the height *SQ*.

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5. The diameter of a circle, AB, is of length 8·7 cm, BC has length 5·4 cm and $\hat{ACB} = 90°$. Calculate the length of AC.

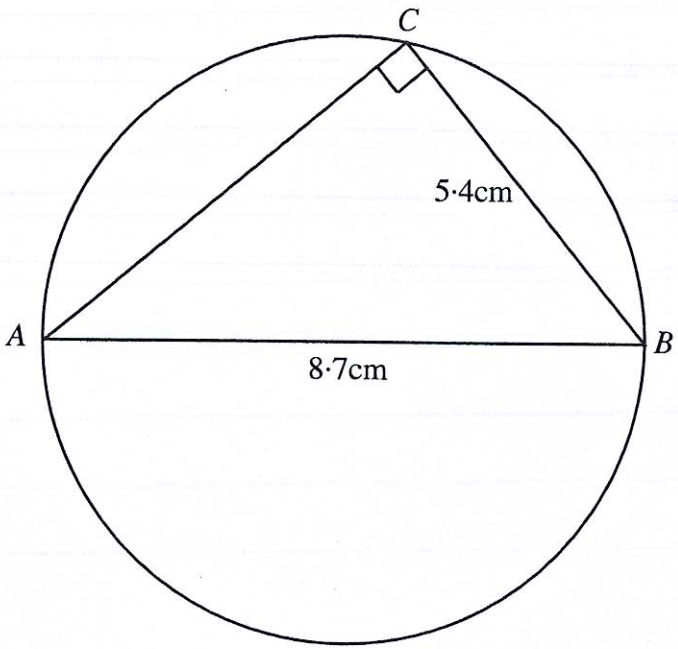

Diagram not drawn to scale.

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