

Note that Pythagoras' Theorem also comes up in 'Properties of Shapes' questions

Marks are indicated in brackets after each question number

2014 Paper 2 Question 6, (4)

The diagram below shows the position of three towns.

Lowtown is due west of Midtown.

The distance from

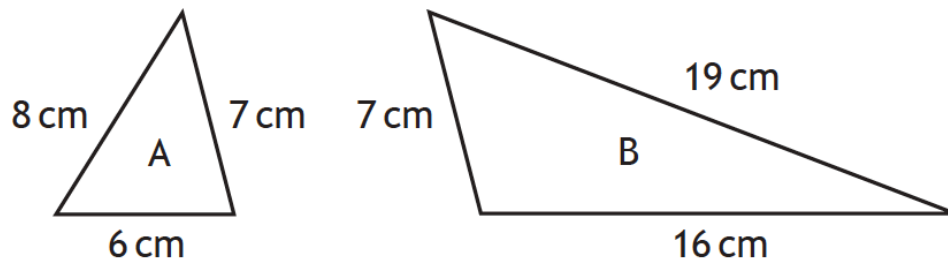
- Lowtown to Midtown is 75 kilometres.
- Midtown to Hightown is 110 kilometres.
- Hightown to Lowtown is 85 kilometres.



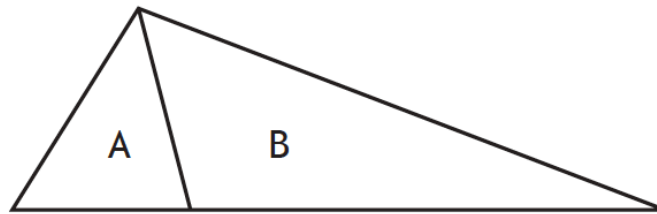
Is Hightown directly north of Lowtown?

Justify your answer.

Triangles A and B are shown below.



The triangles are placed together to form the larger triangle shown below.



Is this larger triangle right-angled?

Justify your answer.