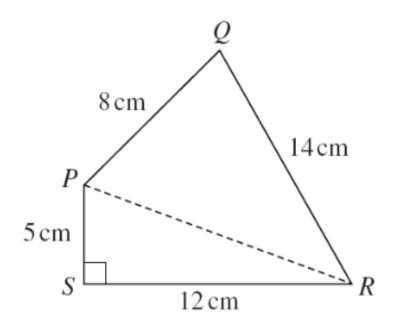
Q1) The quadrilateral *PQRS* has dimensions as shown. Angle $PSR = 90^{\circ}$

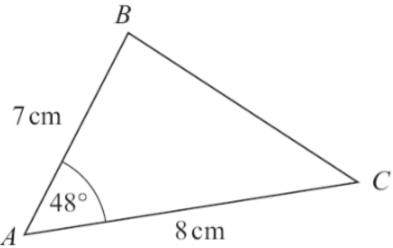


Not drawn accurately

Calculate the area of triangle PQR.

[5 marks]

Q2) *ABC* is a triangle.



(a) Calculate the length of side BC.

[3 marks]

(b) Find the size of angle BCA.

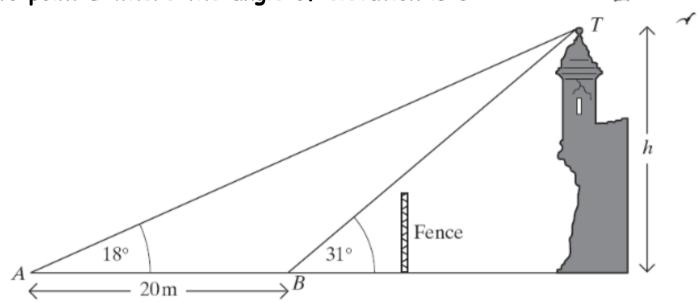
[3 marks]

Q3)

A ruined tower is fenced off for safety reasons.

To find the height of the tower Rashid stands at a point A and measures the angle of elevation as 18° .

He then walks 20 metres directly towards the base of the tower to point B where the angle of elevation is 31°

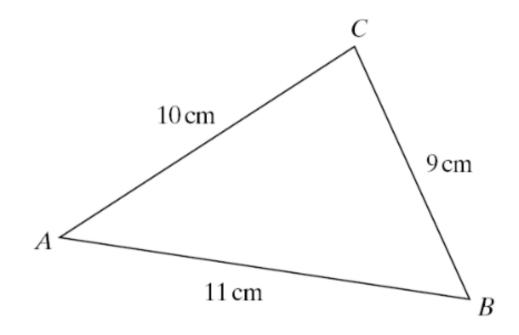


Calculate the height, h, of the tower.

[6 marks]

Q4)

In triangle ABC, $AB = 11 \,\text{cm}$, $BC = 9 \,\text{cm}$ and $CA = 10 \,\text{cm}$.



Find the area of triangle ABC.

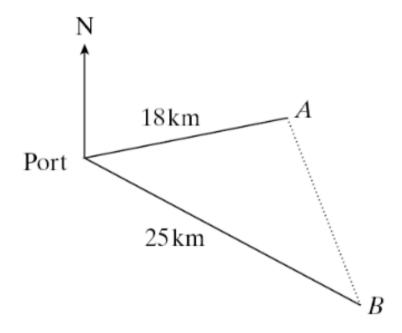
[5 marks]

Q5)

Two ships, A and B, leave port at 1300 hours.

Ship A travels at a constant speed of $18 \,\mathrm{km}$ per hour on a bearing of 070° .

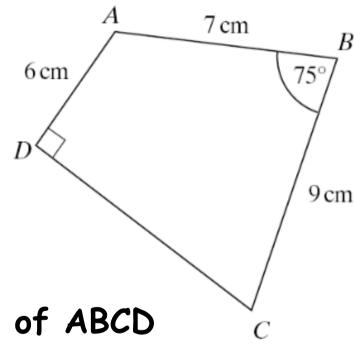
Ship B travels at a constant speed of 25 km per hour on a bearing of 152° .



Calculate the distance between A and B at 1400 hours.

[4 marks]

Q6) ABCD is a quadrilateral. AB = 7 cm, AD = 6 cm and BC = 9 cm. Angle $ABC = 75^{\circ}$ and angle $ADC = 90^{\circ}$



Calculate the perimeter of ABCD

[5 marks]