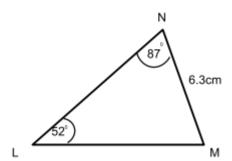


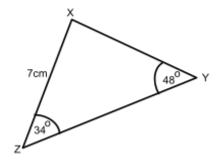
1. Work out the length LM correct to 3 significant figures.





2. Work out the length XY correct to 3 significant figures.

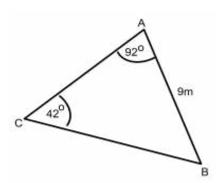
(3 marks)





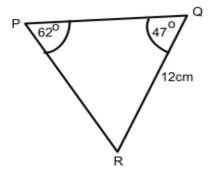
3. Work out the length BC correct to 1 decimal place.





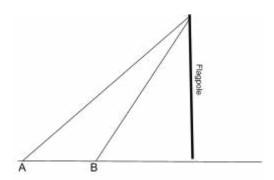
4. Work out the length PQ correct to 2 decimal places.

(3 marks)



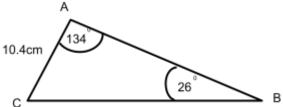


5. The diagram shows a flagpole held by 2 wire ropes. From point A, the angle of elevation to the top of the flagpole is 65°. From point B the angle of elevation to the top of the flagpole is 78°. The distance from A to B is 7.8m. Find the height of the flagpole. (4 marks)

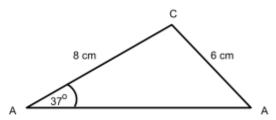




6. Work out the area of triangle ABC. Give your answer to a suitable degree of accuracy. (4 marks)

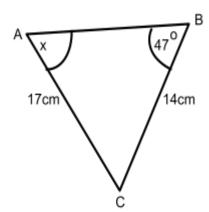


7. Work out the size of angle ABC. Give your answer correct to 1 decimal place. (3 marks)

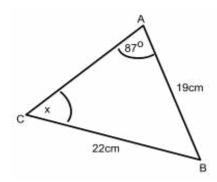




8. Work out the size of angle x. Give your answer correct to 3 significant figures..



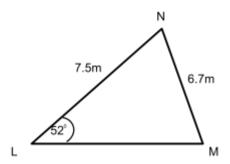
9. Work out the size of angle x. Give your answer correct to 3 significant figures. (3 marks)



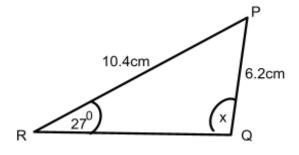


10. Work out angle LMN correct to 3 significant figures.

(3 marks)



11. Angle PQR is obtuse. Work out the size of angle PQR. Give your answer to 1 decimal place. (4 marks)





12. Airplane A is flying directly towards an airport which is 30 miles away. The pilot of airplane A sees airplane B, which is  $50^{\circ}$  on his right.

Airplane B is also flying directly to the airport.

The pilot of airplane B calculates that airplane A is 45° on her left.

How far is airplane B from the airport?

(4 marks)



13. Sean and Rohan are standing 400m apart on a straight, horizontal road. They see a hot air balloon between them directly above the road. The angle of elevation from Sean is  $62^{\circ}$  and from Rohan is  $78^{\circ}$ .

(a) Work out the distance between Sean and the balloon (2 marks)

(b) Find the height of the balloon directly above the road. (2 marks)

Give your answers correct to 1 decimal place.

Total / 44 marks