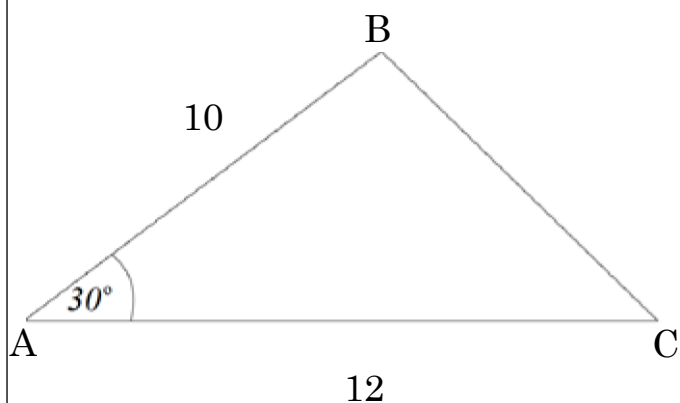


The Cosine Rule Exam Practice

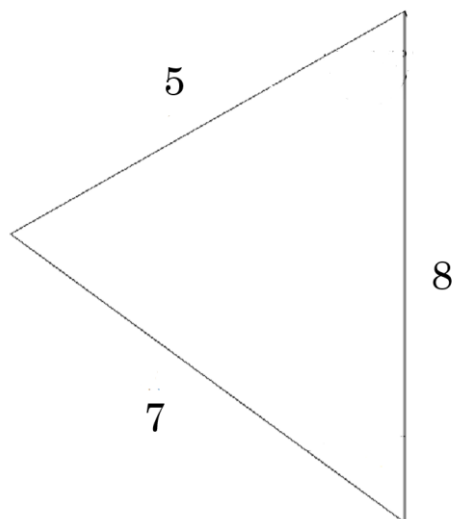


Q1. Find the length of side BC in the triangle below to 1 decimal place.



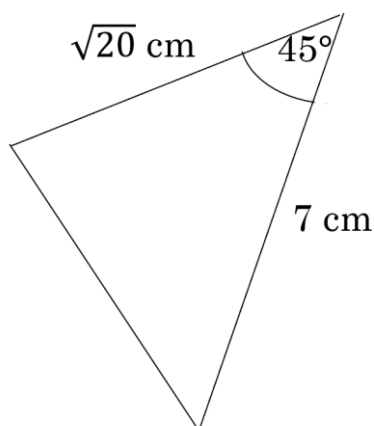
(3 marks)

Q2. Find the size of the largest angle in the triangle below to 2 decimal places.



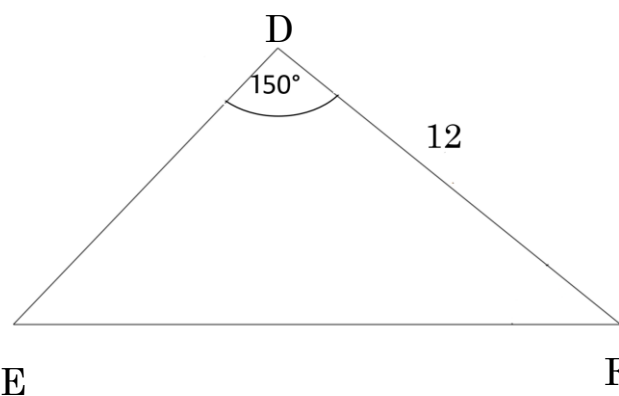
(4 marks)

Q3. Find the length of the missing side in the triangle below, giving your answer in the form $a + b\sqrt{c}$, where a, b and c are integers.



(4 marks)

Q4. The area of the triangle below is 30 squared units.

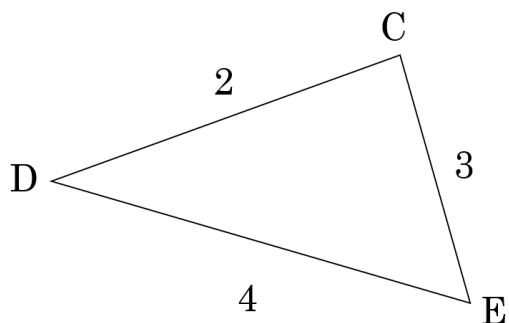


(i) Find the length of side DE to 1 d.p.
(3 marks)

(ii) Hence find the perimeter of the triangle to 3 significant figures.
(3 marks)



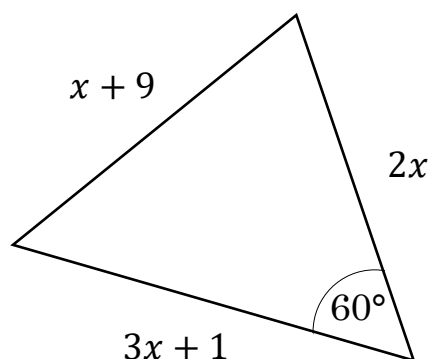
Q5.



(i) Show clearly that $\cos(E) = \frac{7}{8}$
(4 marks)

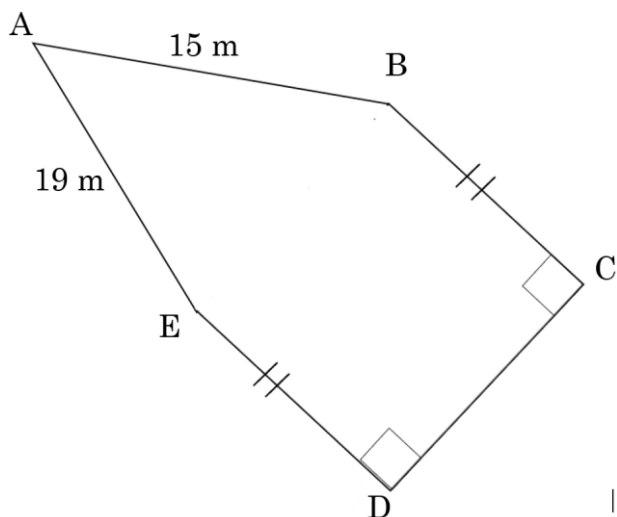
(ii) Hence show that the exact area of the triangle is $\frac{3}{4}\sqrt{15}$
(3 marks)

Q6. Find the area of the triangle:



(7 marks)

Q7. Below is a diagram of a garden:



Fencing is to be placed around the perimeter of the garden. If the fencing costs £7.50 per metre, work out the total cost.

(6 marks)

Q8. Ship A is 14 km from a lighthouse on a bearing of 053° . Ship B is 10.5 km from the same lighthouse on a bearing of 162° .

(i) Calculate the distance between the two ships, giving your answer to the nearest metre.
(4 marks)

(ii) Calculate the bearing of ship B from ship A giving your answer to the nearest tenth of a degree.
(3 marks)