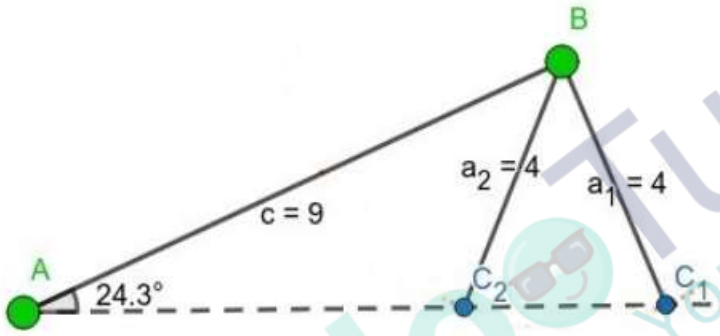
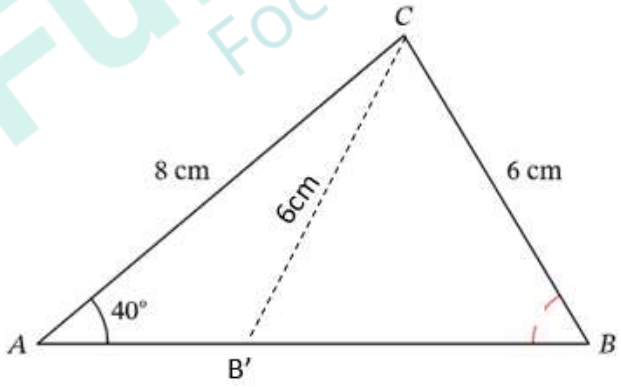
Worksheet P4 Ambiguous Case of Sine Rule IGCSE Mathematics 0580

The Ambiguous Case of the Law of Sines states that when using the law of sines to find a missing angle, the possibility of two solutions for the measure of the same angle may occur. This ambiguous case occurs when

- two sides and a non-included angle of a triangle are given.
- the given angle is acute
- the side opposite to the angle is smaller than the other givem side





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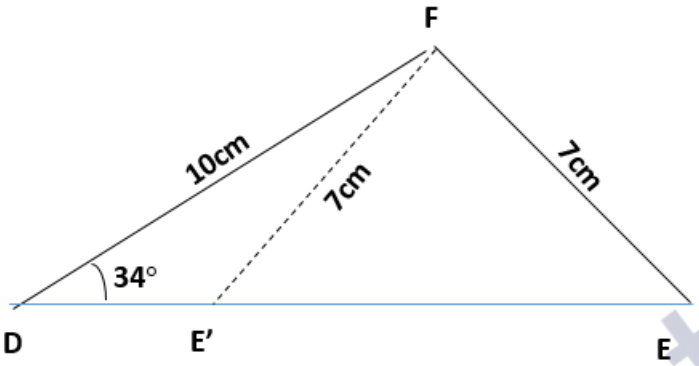
1. In triangle DEF , DF = 10cm , EF = 7cm and E$\hat{D}$F = $34°$.
   Find the possible values of
   (i) angle DEF (ii) angle DFE (iii) DE

2. In triangle ABC , AB = 12cm , BC = 10 cm and B$\hat{A}$C = $50°$.
   Find the possible values of
   (i) angle ACB (ii) angle ABC (iii) AC

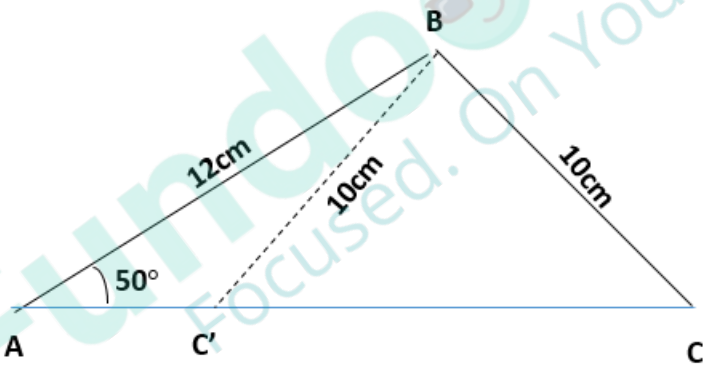
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Answers

1) Triangle 1 (i)53.0 (ii)93.0 (iii) 12.5
Triangle 2 (i) 127.0 (ii)10.0 (iii) 4.08



2) Triangle 1 (i)66.8 (ii) 63.2 (iii) 11.7
Triangle 2 (i)113.2 (ii) 16.8 (iii) 3.78



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