InkMaths

QUESTION WORKBOOK

Triangles and the sine and cosine rules

Trigonometry · Year 12–13

7 questions · 25 marks

PRINT EDITION

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SECTION A · Warm-up

A1 In triangle ABC, A = 35°, B = 80° and a = 10 cm. Find b to 3 significant figures. [2]

A2 A triangle has sides of 8 cm and 11 cm meeting at 30°. Find its exact area. [2]

SECTION B · Standard

B1 A triangle has sides of 6 cm and 9 cm meeting at 40°. Find the third side to 3 significant figures. [3]

B2 A triangle has sides 5 cm, 6 cm and 7 cm. Find the largest angle to 1 decimal place. [3]

B3 In triangle ABC, A = 50°, C = 60° and a = 12 cm. Solve the triangle completely, giving sides to 3 significant figures. [5]

SECTION C · Stretch

C1 In triangle ABC, a = 7 cm, b = 9 cm and A = 40°. Show that two different triangles fit this data, and find both possible values of B to 1 decimal place. [5]

C2 A triangle has sides of 4 cm and 6 cm meeting at 60°. Without a calculator, find the exact length of the third side and the exact area. [5]