



QUESTION WORKBOOK

Triangles and the sine and cosine rules

Trigonometry · Year 12–13

7 questions · 20 marks

NAVY SCREEN EDITION

SECTION A · Warm-up

A1 In triangle ABC, $A = 35^\circ$, $B = 80^\circ$ 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, $A = 50^\circ$, $C = 60^\circ$ and $a = 12$ cm. Solve the triangle completely, giving sides to 3 significant figures. [4]

SECTION C · Stretch

- C1** In triangle ABC, $a = 7$ cm, $b = 9$ cm and $A = 40^\circ$. Show that two different triangles fit this data, and find both possible values of B to 1 decimal place. [3]

- 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. [3]