

1. ABC is a triangle. Given the angle at C, the opposite side AB and the adjacent side BC respectively, find the angle at A. (all distances in cm, answers to 2 d.p.)

(a)  $45^\circ$ , 7, 9

(b)  $60^\circ$ , 12, 8

(c)  $75^\circ$ , 11, 7

(d)  $65^\circ$ , 10, 6

(e)  $42^\circ$ , 13, 5

(f)  $39^\circ$ , 15, 5

(g)  $68^\circ$ , 14, 6

(h)  $25^\circ$ , 7, 5

(i)  $55^\circ$ , 20, 16

2. ABC is a triangle. Given the angle at C, the opposite side AB and the angle at B respectively, find the length of the side AC. (all distances in cm, answers to 2 d.p.)

(a)  $49^\circ$ , 8,  $55^\circ$

(b)  $55^\circ$ , 5,  $75^\circ$

(c)  $53^\circ$ , 12,  $49^\circ$

(d)  $86^\circ$ , 14,  $31^\circ$

(e)  $76^\circ$ , 11,  $19^\circ$

(f)  $63^\circ$ , 12,  $52^\circ$

(g)  $58^\circ$ , 9,  $71^\circ$

(h)  $41^\circ$ , 17,  $48^\circ$

(i)  $35^\circ$ , 24,  $44^\circ$

3. ABC is a triangle. Given the angles at B and C and the length of BC respectively, find the length of the sides AB and AC. (all distances in cm, answers to 2 d.p.)

(a)  $36^\circ$ , 24,  $51^\circ$

(b)  $29^\circ$ , 19,  $38^\circ$

(c)  $27^\circ$ , 22,  $35^\circ$

(d)  $34^\circ$ , 36,  $43^\circ$

(e)  $33^\circ$ , 19,  $45^\circ$

(f)  $35^\circ$ , 18,  $67^\circ$

(g)  $31^\circ$ , 27,  $45^\circ$

(h)  $44^\circ$ , 64,  $12^\circ$

(i)  $35^\circ$ , 33,  $80^\circ$

1.

(a)  $65.39^\circ$

(b)  $35.26^\circ$

(c)  $37.93^\circ$

(d)  $32.94^\circ$

(e)  $14.91^\circ$

(f)  $12.11^\circ$

(g)  $23.41^\circ$

(h)  $17.57^\circ$

(i)  $40.94^\circ$

2.

(a) 8.68

(b) 5.90

(c) 11.34

(d) 7.23

(e) 3.69

(f) 10.61

(g) 10.03

(h) 19.26

(i) 29.07

3.

(a) 14.13, 18.68

(b) 10.01, 12.71

(c) 11.31, 14.29

(d) 20.66, 25.20

(e) 10.58, 13.74

(f) 10.56, 16.94

(g) 14.33, 19.68

(h) 53.63, 16.05

(i) 20.88, 35.86