1. ABC is a triangle. Given the included angle C, the adjacent sides AC and BC respectively, find the length of side AB. (all distances in cm, answers to 2 d.p.)

   (a) 60°, 7, 9   (b) 49°, 10, 12   (c) 35°, 16, 19

   (d) 52°, 20, 17   (e) 31°,   9, 15   (f) 44°, 8, 6

   (g) 82°, 14, 18   (h) 76°, 21, 27   (i) 66°, 11, 15

2. ABC is a triangle. Given the lengths of the sides, AB, BC and AC respectively, calculate the angle at C.

   (a) 4, 5, 7   (b) 12, 9, 11   (c) 18, 23, 29

   (d) 33, 17, 25   (e) 19, 10, 13   (f) 21, 22, 17

   (g) 8, 7, 12   (h) 37, 29, 45   (i) 56, 34, 28

3. XYZ is a triangle. Given the lengths of the sides, XY, YZ and XZ respectively, calculate the angle at Y.

   (a) 23, 45, 37   (b) 46, 55, 65   (c) 12, 19, 18

   (d) 34, 25, 19   (e) 52, 48, 61   (f) 16, 18, 12

   (g) 17, 28, 26   (h) 52, 19, 34   (i) 22, 47, 29

1.

(a) 8.19   (b) 9.30   (c) 10.91

(d) 16.44   (e) 8.64   (f) 5.56

(g) 21.21   (h) 29.93   (i) 14.55

2.

(a) 34.05^o (b) 72.97^o (c) 38.36^o

(d) 101.88^o (e) 110.72^o (f) 63.65^o

(g) 39.84^o (h) 55.00^o (i) 128.91^o

3.

(a) 55.08^o (b) 79.57^o (c) 66.61^o

(d) 33.35^o (e) 75.06^o (f) 40.80^o

(g) 65.35^o (h) 14.96^o (i) 26.42^o