Shape & Space – trig

the cosine ratio

question sheet SS-CO-01

www.gcsemathstutor.com

info@gcsemathstutor.com

The following questions are to be solved using the cosine ratio only.

1. ABC is a right-angled triangle with the angle at $A = 90^{\circ}$. What is the length of the side AC, with the following values for the hypotenuse BC and the angle at C? (all distances in cm, answers to 2 d.p.)

(c) $21,60^{\circ}$

(d) 11, 52°

(e) $14, 38^{\circ}$

(f) $27, 65^{\circ}$

(i) 31, 52°

2. ABC is a right-angled triangle with the angle at $B = 90^{\circ}$. What is the length of the hypotenuse AC, with the following values for the side BC and the angle at C? (all distances in cm, answers to 2 d.p.)

(a) $9,55^{\circ}$

(b) $22, 28^{\circ}$

(c) $36, 22^{\circ}$

(d) $42, 33^{\circ}$

(e) $17, 49^{\circ}$

(f) 26, 31°

(g) 17, 68°

(h) $25, 70^{\circ}$

(i) 19, 24°

3. Using the values for the hypotenuse and one side of a right angled triangle, calculate the unknown interior angles. (all distances in cm, answers to 1 d.p.)

- (a) 8, 7 (b) 11, 7 (c) 29, 19
- (d) 24, 15

(e) 45, 29

(f) 36, 29

- (h) 31, 28
- (i) 47, 30

the cosine ratio answer sheet SS-CO-01 Shape & Space - trig GCSE Maths Tutor www.gcsemathstutor.com info@gcsemathstutor.com or.com~GCSE Maths Tutor~ www.gcsemath (a) 6.06 (b) 13.44 (c) 10.50 (d) 6.77 (e) 11.03 (f) 11.41 (h) 6.73 (i) 19.09 (g) 17.22 SE Maths Tutor~ www.gcsemathstutor.com emathstutor.com~GCSE Maths Tutor~ w (b) 24.92 (a) 15.69 (c) 38.83 (e) 25.91 (f) 30.33 (h) 73.10 (i) 20.80 (f) 30.33 (d) 50.08 (g) 45.38 3. (a) 29.0° , 61.0° (b) 50.5° , 39.5° (c) 49.1° , 40.9° (e) 49.9° , 40.1° (d) 51.3°, 38.7° (f) 36.3°, 53.7° (g) 50.8° , 39.2° (h) 25.4° , 64.6° (i) 50.3°, 39.7°