

Question 7 – 4:

7(a)	87.[0] or 86.98 to 86.99	3	<p>M2 for $\sqrt{82^2 + 55^2 - 2 \times 82 \times 55 \times \cos 76}$ oe OR M1 for $82^2 + 55^2 - 2 \times 82 \times 55 \times \cos 76$ oe A1 for 7570 or 7566 to 7567</p>
7(b)	66.1 or 66.2 or 66.13 to 66.17	3	<p>M2 for $\frac{82 \times \sin 76}{\text{their (a)}}$ oe or M1 for $\frac{82}{\sin C} = \frac{\text{their (a)}}{\sin 76}$ oe</p>
7(c)	13.3 or 13.30 to 13.31	3	<p>M2 for $AG = 55 \cos 76$ oe or M1 for recognition that CG is perpendicular to AB</p>
7(d)	54.1 or 54.13... and 125.9 or 125.86 to 125.87	5	<p>B4 for 54.1 or 54.13... or 125.9 or 125.86 to 125.87 M3 for $[\sin Q] = \frac{0.5 \times 82 \times 55 \times \sin 76}{0.5 \times 90 \times 60}$ oe or M2 for $0.5 \times 82 \times 55 \times \sin 76 = 0.5 \times 60 \times 90 \times \sin Q$ oe or M1 for $0.5 \times 82 \times 55 \times \sin 76$ oe or for $0.5 \times 60 \times 90 \sin Q = \text{their area of } ABC$ If B4 not scored then SC1 for two angles seen that sum to 180 (from use of sine ratio) but not 0 and 180.</p>