

Question 4 – 1:

4(a)(i)	40.9 or 40.91...	3	<p>M2 for $[\sin ABC =] \frac{29.5 \sin 51.6}{35.3}$ oe</p> <p>or for $[\cos ABC =] \frac{35.3^2 + 45^2 - 29.5^2}{2 \times 35.3 \times 45}$</p> <p>or M1 for $\frac{29.5}{\sin ABC} = \frac{35.3}{\sin 51.6}$ oe</p> <p>or for correct implicit cosine rule</p>
4(a)(ii)	520 or 520.0 to 520.2...	2	<p>FT <i>their</i> (a)(i) if used provided working shown</p> <p>M1 for $0.5 \times 29.5 \times 45 \times \sin 51.6$ oe</p> <p>or for $0.5 \times 35.3 \times 45 \times \sin(\text{their(a)(i)})$</p> <p>or for $0.5 \times 35.3 \times 29.5 \sin(180 - 51.6 - \text{their(a)(i)})$</p>
4(b)(i)	41.2 or 41.21 to 41.23	4	<p>M1 for $SQ = 2 \times 32 \times \sin\left(\frac{1}{2} \times 56\right)$ oe</p> <p>or $\sqrt{32^2 + 32^2 - 2 \times 32 \times 32 \times \cos 56}$ oe</p> <p>or $\frac{32 \sin 56}{\sin((180 - 56) \div 2)}$ oe</p> <p>M2 for</p> <p>$SR^2 = 47^2 + (\text{their } SQ^2) - 2 \times 47 \times \text{their } SQ \times \cos 60$</p> <p>or M1 for implicit form</p>
4(b)(ii)	28.3 or 28.25 to 28.29...	3	<p>M2 for $32 \times \sin 62$ oe</p> <p>or M1 for recognition that line from P is perpendicular to SQ</p>