Question	Scheme	Marks	AOs
8(a)	$(2x-1)^2=(x-1)^2+(x+3)^2-2(x-1)(x+3)\cos 60°$ oe	M1	3.1a
	Uses $\cos 60° = \frac{1}{2}$, expands the brackets and proceeds to a 3TQ	dM1	1.1b
	$x^2-2x-4=0$ *	A1*	2.1
		(3)	
(b)	$(x=)\ 1+\sqrt{5}$	B1	3.2a
	Area $=\frac{1}{2}\times\sqrt{5}\times(4+\sqrt{5})\times\sin 60°$	M1	1.1a
	Area = awrt 6.04 (cm^2)	A1	1.1b
		(3)	
			(6 marks)

Notes

(a)

M1: Recognises the need to apply the cosine rule and attempts to use it with sides in the correct positions and the formula applied correctly.

dM1: Uses $\cos 60° = \frac{1}{2}$, which may be implied, expands the brackets and proceeds to a 3-term quadratic with terms on one side.

A1*: Obtains the correct quadratic equation with no errors seen.

(b)

B1: Deduces that the value of x is $1+\sqrt{5}$. May be implied by the value used in their attempt to find the area of the triangle.

M1: Attempt to find the area of the triangle with the correct lengths used. The expression is sufficient for this mark.

A1: awrt 6.04 (cm^2) Condone lack of units