

Question	Scheme		Marks	AOs
8(a)	<u>Way 1</u>	<u>Way 2</u>	M1	2.1
	Finds third angle of triangle and uses or states $\frac{x}{\sin 60^\circ} = \frac{30}{\sin 50^\circ}$	Finds third angle of triangle and uses or states $\frac{y}{\sin 70^\circ} = \frac{30}{\sin 50^\circ}$		
	So $x = \frac{30 \sin 60^\circ}{\sin 50^\circ}$ (= 33.9)	So $y = \frac{30 \sin 70^\circ}{\sin 50^\circ}$ (= 36.8)	A1	1.1b
	Area = $\frac{1}{2} \times 30 \times x \times \sin 70^\circ$ or $\frac{1}{2} \times 30 \times y \times \sin 60^\circ$		M1	3.1a
	= 478 m ²		A1ft	1.1b
		(4)		
(b)	Plausible reason e.g. Because the angles and the side length are not given to four significant figures Or e.g. The lawn may not be flat		B1	3.2b
			(1)	

(5 marks)

Notes:

(a)

M1: Uses sine rule with their third angle to find one of the unknown side lengths

A1: Finds expression for, or value of either side length

M1: Completes method to find area of triangle

A1ft: Obtains a correct answer for their value of x or their value of y

(b)

B1: As information given in the question may not be accurate to 4sf or the lawn may not be flat so modelling by a plane figure may not be accurate