6	**(a)**		$\frac{1}{2}xy\sin 60 = \sqrt{3}(x+y)$ Must have *xy*, not *ab* May be implied by next line $\frac{1}{2}\left(\frac{\sqrt{3}}{2}\right)xy = \sqrt{3}(x+y)$ **oe** $\Rightarrow 4x+4y = xy$ **(AG)**	**M1** **A1** **[2]**	**1.1a** **2.1**	Verification method: eg substitute $4x + 4y$ for xy in $\frac{1}{2}\left(\frac{\sqrt{3}}{2}\right)xy = \sqrt{3}(x+y)$ M1 obtain $\sqrt{3}(x+y) = \sqrt{3}(x+y)$ A1	Condone incorrect use of brackets eg $x+y(\sqrt{3})$, if next line shows intention is correct Must show sufficient working to justify the given answer
6	**(b)**		Angle *ABC* is $90°$	**B1***	**3.1a**	May be implied by correct trig statement	Possibly on diagram

			$\cos 60 = \frac{x}{y}$ or $\frac{x}{y} = \frac{1}{2}$ or $y = 2x$	**B1**	**1.1**	or any correct x, y equn eg $\frac{x}{\sin 30} = \frac{y}{\sin 90}$	Dep B1*
			$4x + 4(2x) = x(2x)$ oe or $4(\frac{y}{2}) + 4y = y \times \frac{y}{2}$ oe	**M1**	**1.1**	or $\sqrt{3}(x + 2x) = \frac{1}{2} \times x \times 2x \times \frac{\sqrt{3}}{2}$	Obtain a correct equation in x or y only
			($\Rightarrow x(x - 6) = 0$) or $\Rightarrow y(y - 12) = 0$) $x = 6,\ y = 12$	**A1** **[4]**	**1.1**	No need to consider $x = 0$ or $y = 0$	