25	eg $\tan 30 = \frac{x}{0.5AB}$ **or** $\tan 60 = \frac{0.5AB}{x}$ oe **or** $0.5AB = \frac{x}{\tan 30}$ **or** $0.5AB = x\tan 60$ oe **or** $\frac{1}{2}AB = \sqrt{3}x$		5	M1 (off spec but a student who knows without calc that height of triangle = 3*x*: $\tan 60 = \frac{3x}{0.5AB}$ or $\sin 60 = \frac{3x}{BC}$)
	eg (*AB* =) $2x\tan 60$ **or** $\frac{2x}{\tan 30}$ **or** $2\sqrt{3}x$ **or** $3.46..x$ oe **OR** area small⌴ $\left(\frac{1}{6}\textit{shape}\right) = \frac{1}{2}\times x\tan 60\times x$ **or** $\frac{1}{2}\times\sqrt{3}x\times x$ **or** $\frac{\sqrt{3}}{2}x^2$			M1 Expression for side of triangle (*AB* or *BC* or *AC*) **OR** the area of one or more of the six triangles
	eg $6\times\frac{1}{2}\times x\tan 60\times x$ **or** $\frac{1}{2}\times(2x\tan 60)^2\times\sin 60$ **or** $\frac{1}{2}\left(\frac{2x}{\tan 30}\right)^2\sin 60$ **or** $\frac{1}{2}\times 2\sqrt{3}x\times\sqrt{\left(2\sqrt{3}x\right)^2-\left(\sqrt{3}x\right)^2}$ **or** $0.5\times 2\sqrt{3}x\times 3x$ **or** $3\sqrt{3}x^2$ **or** $5.19...x^2$			M1 a correct expression for the area of triangle *ABC*
	$6\times\frac{\sqrt{3}}{2}x^2-\pi x^2$ **or** $3\sqrt{3}x^2-\pi x^2$ **or** "5.19..." $x^2-\pi x^2$ **or** $6\times\frac{1}{2}\times\tan 60\times x^2-\pi x^2$ **or** $\frac{1}{2}\left(\frac{2x}{\tan 30}\right)^2\sin 60-\pi x^2$ oe			M1 a correct expression for the area of the shaded parts of the diagram or a correct equation for the shaded parts of the diagram
	Correct answer scores full marks (unless from obvious incorrect working) **Look for values written on the diagram**	2.05		A1 2.05 – 2.06
	SEE NEXT PAGE FOR USING A VALUE FOR RADIUS		**Total 5 marks**	

25	eg $\tan 30 = \frac{100}{0.5AB}$ **or** $\tan 60 = \frac{0.5AB}{100}$ oe **or** $0.5AB = \frac{100}{\tan 30}$ **or** $0.5AB = 100\tan 60$ oe **or** $\frac{1}{2}AB = \sqrt{3}\times 100$		5	M1 eg using radius = **100** **ANY VALUE CAN BE USED CONSISTENTLY FOR AWARD OF MARKS**
	eg (AB =) $200\tan 60$ **or** $\frac{200}{\tan 30}$ **or** $200\sqrt{3}\,x$ or $346\ldots x$) or area small triangle$\left(\frac{1}{6}\,shape\right)$ = $\frac{1}{2}\times$"173..."$\times 100$ (= 8660…)			M1 Expression for side of triangle or the area of one or more of the six triangles
	eg $\frac{1}{2}\times 200\sqrt{3}\times 200\sqrt{3}\times\sin 60 (= 51961.52...)$ or or $6\times\frac{1}{2}\times$"173..."$\times 100$ $(= 6\times$"8660..."$= 51961.52...)$			M1 a correct expression for the area of the triangle
	eg "51961.52"$-\pi\times 100^2 = 100^2\,n$			M1 a correct equation for the area of the shaded parts of the diagram.
	Correct answer scores full marks (unless from obvious incorrect working)	2.05		A1 2.05 – 2.06
	SEE PREVIOUS PAGE FOR USING *x* FOR RADIUS			**Total 5 marks**

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