1	Result shown	P1	for process to find the length of half a side or a side or the perimeter of the smaller hexagon *PQRSTU*, eg $r\sin 30 \left(=\frac{r}{2}\right)$ oe or $2r\sin 30 \ (=r)$ oe or $6 \times 2r\sin 30 \ (=6r)$ oe	May use Sine Rule or cos60 instead of sin30
		P1	for process to find the length of half a side or a side or the perimeter of the larger hexagon *ABCDEF* eg Length of half side = r tan 30 or $\frac{r}{\tan 60} \left(=\frac{\sqrt{3}r}{3}\right)$ oe or Length of side = $2r$ tan 30 or $\frac{2r}{\tan 60}$ or $\frac{r}{\sin 60}$ or $\frac{r}{\cos 30} \left(=\frac{2\sqrt{3}r}{3}\right)$ oe or Length of perimeter = $6 \times 2r$ tan 30 or $6 \times \frac{2r}{\tan 60}$ oe	May use Sine Rule Note this mark is not for just the sight of $\frac{\sqrt{3}r}{3}$ or $\frac{2\sqrt{3}r}{3}$ or $\frac{12\sqrt{3}r}{3}$ oe, they need to be associated with the correct length Perimeter = $4\sqrt{3}r$ alone does not get this mark
		P1	(dep P2) for process of forming a correct inequality, eg using half lengths eg $\frac{r}{2} < \frac{2\pi r}{12} < r$ tan 30 oe or using lengths eg $r < \frac{2\pi r}{6} < 2r$ tan 30 oe or using perimeters eg $6 \times r < 2\pi r < 6 \times 2r$ tan 30 oe	
		C1	(dep P2) correct algebra leading to given result, $3 < \pi < 2\sqrt{3}$	