18	$SQ^2 = 8^2 + 12^2 - 2\times 8\times 12\times \cos 120^o$	91.4	6	M1	If this mark is awarded then ft on the remaining M marks
	$(SQ) = \sqrt{304}$			M1	for correct order of operations e.g. 64 + 144 + 96 or 304 or 17.4…. or $4\sqrt{19}$
	$\frac{\sin R}{"\sqrt{304}"} = \frac{\sin 27^\circ}{9}$			M1	
	$R = sin^{-1}\left(\frac{\sin 27^\circ \times "\sqrt{304}"}{9}\right)$			M1	can be implied by 61.5833...
	61.58			A1	for 61.58 - 61.6
				B1	ft dep M3 180 – "61.6" – 27
					Total 6 marks

19	$\frac{dy}{dx} = 3x^2 - 27$	108		M1	for at least one of $3x^2$ or 27
	$3x^2 - 27 = 0$			M1	(dep) for a 2 or 3 term quadratic =0
	$x = \pm 3$			A1	
	When $x = -3$, $b = (-3)^3 - 27(-3) + k$ $(= 54 + k)$ When $x = 3$, $d = 3^3 - 27(3) + k$ $(= -54 + k)$			M1	for either substituting $x = 3$ or $x = -3$ into the y expression. Only award this mark if k or a number representing k is in the expression for b or d
	$b - d = 54 + k - (-54 + k)$			M1	dep on all previous M marks Expressions for b and d must have k or the same number representing k
				A1	
					Total 6 marks