

Assessment Schedule – 2006**Mathematics: Solve straightforward trigonometric equations (90292)****Evidence Statement**

	Assessment Criteria	No.	Evidence	Code	Judgment	Sufficiency
ACHIEVEMENT	Solve straight-forward trigonometric equations.	1(a)	$26.6^\circ, 206.6^\circ$ (0.4643, 3.606)	A	Both answers required for each question. Or equivalent.	Achievement Two As Replacement evidence: Any part of Q 2,3,4.
		1(b)	$191.5^\circ, 348.5^\circ$ (3.342, 6.082)	A	Or equivalent.	
		1(c)	$0.927, 5.356$ (53.1°, 306.9°)	A	Or equivalent. Degrees or radians accepted throughout.	
MERIT	Solve trigonometric equations.	2	$0.663, 2.234, 3.805, 5.375$ (37.98°, 127.98°, 217.98°, 307.98°)	A M	Must have all four answers. Or equivalent.	Achievement with Merit: Achievement plus Two Ms OR all Ms.
		3	$t = 2.30$ and 3.98 ANS: time = 1.68	A M	Or equivalent.	
		4	T = 3.93 mins Or 3min 55 sec	A M	Or equivalent. 4 AO not accepted 3.9 AO accepted	
EXCELLENCE	Solve multi-step trigonometric problems.	5	$145 = 128 - 28 \cos\left(\frac{\pi t}{45}\right)$ $\cos\left(\frac{\pi t}{45}\right) = -\frac{17}{28}$ $\frac{\pi t}{45} = 2.22 \text{ and } 4.06$ $t = 31.84 \text{ and } 58.15$ time = 26.3 min (26 min 18 sec)	M E	Must have clear explanation of the process being used to solve the problem. Problem must model the first hour.	Excellence: Merit plus E.

Judgement Statement**Mathematics: Solve straightforward trigonometric equations (90292)**

Achievement	Achievement with Merit	Achievement with Excellence
Solve straightforward trigonometric equations. $2 \times A$	Solve trigonometric equations. Achievement <i>plus</i> $2 \times M$ OR $3 \times M$	Solve multi-step trigonometric equations. Merit <i>plus</i> $1 \times E$