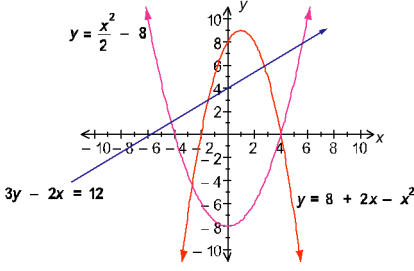


Assessment Schedule – 2005**Mathematics: Sketch and interpret graphs (90148)****Evidence Statement****THE TENT**

	Achievement Criteria	Q	Evidence	Code	Judgement	Sufficiency
Achievement	Sketch, and interpret features of, graphs.	1(a) 1(b) 1(c)		AG AG AG	(a) Straight line through (0, -6) and (-3, 0) (b) Horizontal line y int (0, 8) (c) Parabola must be a smooth curve. Intercepts within ± 0.5 . x int (-3, 0) and (1, 0) y int (0, -3) tp at (-1, -4)	Achievement: 2 × code AG plus 2 × code AI
		2(a) 2(b) 2(c)	\$4 \$50 <i>Slides 'n Swings</i> because at 42 days this graph is below <i>Keep-em-Busy</i> graph (S'nS \$155 K-em-B \$168)	AI AI AI	Units not required. Decision and reason both required. Reason must use graph and involve correct use of features.	

	Achievement Criteria	Q	Evidence	Code	Judgement	Sufficiency
Achievement with Merit	Sketch, and interpret features of, graphs.	3(a)	$y = \frac{-3}{4}x + 2$	MQ	Other equivalent forms are acceptable.	EITHER As for Achievement plus 2 × code MG plus 2 × code MI plus 2 × code MQ OR 3 × code MG plus 3 × code MI plus 3 × code MQ
	Write equations for linear graphs.	3(b)	$x = 5$	MQ	Must be equations.	
		3(c)	$y = \frac{3}{2}x - 6$	MQ		
		4(a)		MG/AG	(a) Straight line through (0,4) and (-6,0). Parabolas must be smooth curves.	
		4(b)		MG/AG	Intercepts within ± 0.2 . Turning points within ± 0.2 of the axis of symmetry.	
		4(c)		MG/AG	(b) y int (0,8) x int (-2,0) and (4,0) tp at (1,9). (c) y int and tp (0,-8) x int (-4,0) and (4,0).	
Achievement with Excellence	Determine and apply an appropriate model for a situation involving graphs.	5(a)				As for Merit plus code E
		(i)	80 cm	MI/AI		
		(ii)	40 cm	MI/AI		
		(iii)	67.2 cm	MI/AI		
Achievement with Excellence		5(b)	Substitute $x = 25$ into $y = \frac{-x^2}{20} + 80$ And get $y = 48.75$	AI MI E	<u>Must</u> have this or equivalent equation. Must have a correct total height. Allow any sensibly rounded answer.	
			Substitute $x = 25$ into $y = \frac{x^2}{160} - 20$ $\left(\frac{1}{160} = 0.00625 \right)$ and get $y = -16.09$			
			Total height is 64.84 cm			

Judgement Statement

Achievement	Achievement with Merit	Achievement with Excellence
<p>Sketch and interpret features of graphs.</p> <p>2 × AG <i>plus</i></p> <p>2 × AI.</p>	<p>Sketch and interpret features of graphs.</p> <p>Write equations for linear graphs.</p> <p>Achievement <i>plus</i></p> <p>2 × MQ <i>plus</i> 2 × MG <i>plus</i> 2 × MI</p> <p><i>or</i></p> <p>3 × MQ <i>plus</i> 3 × MG <i>plus</i> 3 × MI</p>	<p>Determine and apply an appropriate model for a situation involving graphs.</p> <p>Merit <i>plus</i></p> <p>1 × E</p>