

Question	Answer	Marks	Guidance
(a)	$^{12}C_4 \times 2$	M1	${}^gC_4 \times h$ $g = 12, 13, h = 1, 2$
	990	A1	
	Alternative method for question (a)		
	[total – both on – neither on] ${}^{14}C_5 - ({}^{12}C_3 + {}^{12}C_5) = [2002 - 220 - 792]$	M1	${}^kC_5 - ({}^aC_3 + {}^aC_5)$ $a = 12, 13$ and $k = 13, 14$
	990	A1	
		2	
(b)	[Mrs Lan plus] 2W 2M ${}^7C_2 \times {}^6C_2 = 315$ 3W 1M ${}^7C_3 \times {}^6C_1 = 210$ 4W ${}^7C_4 = 35$	M1	${}^7C_r \times {}^6C_{4-r}$ for $r = 2, 3$ or 4
		B1	Outcome for one identifiable scenario correct, accept unevaluated
		M1	Add outcomes for 3 identifiable correct scenarios Note: if scenarios not labelled, they may be identified by seeing ${}^7C_r \times {}^6C_s$ $r + s = 4$ to imply r women and s men for both B & M marks only
	[Total =] 560	A1	
		4	