Question	Answer	Marks	Partial Marks
4	$27m - 153 + 3n + 6 = 0$ or better	**B1**	
	$-m - 17 - n + 6 = -12$ or better	**B1**	
	Eliminates one unknown for a pair of linear equations in m and n and solves for one unknown	**M1**	
	$m = 6$, $n = -5$	**A2**	**A1** for either
	-24 cao	**A1**	
5(a)(i)	$1 + 4nx + 8n(n-1)x^2$	**B2**	**B1** for any two correct terms or all 3 correct but listed not summed
5(a)(ii)	$8n(n-1) - 16n$	**M1**	**FT** from (i) identifying correct terms and combining *their* coefficient of $x^2 - 4 \times$ *their* coefficient of x
	Solves or factorises *their* 3-term quadratic in n only	**M1**	Forms a 3-term quadratic = 0 and solves except allow '= a constant' if they go on to complete to square
	$n = 29$ only	**A1**	
5(b)	${}^{10}C_2 \times \left(\frac{x}{2}\right)^8 \times \left(-\frac{8}{x^4}\right)^2$ soi	**M1**	Must be clearly identified not in expansion
	11.25 or $\frac{45}{4}$	**A1**	
6(a)(i)	$6 \times 6 \times 5 \times 4 \times 3$ oe	**M1**	
	2160	**A1**	
6(a)(ii)	Full correct calculation (360 + 900) 'how many end with 0'+ 'how many end with 2, 4, 6' oe	**M2**	**M1** for any correct product soi Eg $(6 \times 5 \times 4 \times 3 \times 1)$ or 360 $(5 \times 5 \times 4 \times 3 \times 1)$ or 300 $(5 \times 5 \times 4 \times 3 \times 3)$ or 900
	1260 cao	**A1**	
6(b)	${}^{15}C_7 - {}^{9}C_7$	**M1**	
	6399	**A1**	