		ℓ odd	ℓ even	
			ℓ' even	ℓ' odd
A_n	n odd ($r=1$ or 2) n even ($r=1$)	$r=2, z=\frac{\ell\pm1}{2}$ $z=\frac{\ell\pm1}{2}$	$r=1, z=1, \ell-1$ or $r=2, z=\ell'\pm1$ $z=1, \ell'\pm1, \ell-1$	$r=1,\ z=1, \ell-1$ $z=1, \ell-1$
B_n		$\ell<2n+5$, unknown $\ell\geq 2n+5$, never	$r=1, z=1, \ell'\pm1, \ell-1$	
C_n				
D_n				
E_n				
F_4				
G_2				