The general pattern is now clear, and we have

\[ \sum \frac{\Theta^n}{n!} a_n = J_1 + \frac{\Theta^2}{2!} J_3 - \frac{\Theta^4}{4!} J_1 - \frac{\Theta^6}{6!} J_3 + \frac{\Theta^8}{8!} J_1 \]

\[ = J_1 \left( 1 - \frac{\Theta^2}{2!} + \frac{\Theta^4}{4!} \ldots \right) + J_3 \left( \frac{\Theta^6}{6!} - \frac{\Theta^8}{8!} \ldots \right) \]

\[ = J_1 \cos \Theta + J_3 \sin \Theta \]

This method is of interest because all that was ever needed was the rule

\[ [J_1, J_2 - J_2 J_1] = J_3 + \text{cyclic permutations thereof} \]