Feedback from MATH32112 - Lie Algebras

There were few problems with Questions A1, B2 and B3 which was the preferred option for many students. The exceptions are the partly unseen problems A1(vi) and B2(iii). Only a small number of students was able to solve Question B4(vi) in full. This is surprising because the solution is very simple: The characteristic polynomial of $e+2f$ has two distinct roots (the square roots of 2), hence $e+2f$ is semisimple. So the semisimple part of $e+2f$ is $e+2f$ and the nilpotent part is 0.

Regarding Question C5 in the exam paper for 42112 and 62112, the students generally did well this year, but some of them made mistakes whilst manipulating with partial derivatives in part (iv).