

Evaluating partial derivatives can be done in 4 steps:

1. Eliminate the energy term using the differential expression for the energy
2. Rewrite the partial derivatives that are left into partial derivatives that are equal to $\beta, \kappa, c_p, c_v, \alpha$, using the Maxwell relations and/or the relations between partial derivatives
3. Put energies (u, h, a, g) into the numerator
4. Replace the isochoric pressure coefficient α and specific heat at constant volume c_v with their expression

What is the correct order of steps?

3,1,2,4