Section 1: Roots and coefficients

Crucial points

1. **Check your algebra**
   The most common problem in this topic is mistakes with algebra. The algebra can be quite complicated, but if you can do this then it will help you in all areas of mathematics.

2. **Make sure that you have learnt the relationships between roots and coefficients**
   In particular, make sure that you remember the pattern of alternating signs in the relationships between roots and coefficients.

3. **Be careful with the Σ notation**
   In particular, make sure that you know how many terms are involved in each case: for example, for a cubic then $\sum \alpha\beta$ has three terms, but for a quartic $\sum \alpha\beta$ has six terms.