Algebraic Simplification Example

A./B.C + A.B./C + A.B.C

1. We can deal with the terms in any order so bracket the 2nd and 3rd group to get

   A./B.C + **(A.B./C + A.B.C)**

2. Taking the bracketed group only remove the common term, in this case 'AB', to get

   AB.(/C + C)

3. The **(/C + C)** group = 1 so we get

   AB.(1) which equals **A.B**

4. Replacing the first group the complete expression is now

   A./B.C + A.B

5. Again, as in step 2 above, we can remove the common variables, in this case 'A' to get

   A.(/B.C + B)   which can be rewritten as

   A.(B+/B.C)

6. The **B+/B.C** group can be rewritten as **(B + C)** according to the Simplification theorem.

   A.(B+C)

Which is the simplified form of **A./B.C + A.B./C + A.B.C**