

Homework #7

Problem 5:

The vector transformation for $\epsilon_{ijk}\epsilon_{mnp}$ is

$$\epsilon'_{ijk}\epsilon'_{mnp} = |a|a_i^r a_j^s a_k^t \epsilon_{rst} |a|a_m^u a_n^v a_p^w \epsilon_{uvw} = a_i^r a_j^s a_k^t a_m^u a_n^v a_p^w \epsilon_{rst} \epsilon_{uvw}. \quad (1)$$

We see that it transforms like a tensor of rank 6.