Exercise 2.7.5 (Brauer pairs)

Write a GAP-program which verifies (in a couple of minutes) that the only Brauer pairs of order up to 2^8 are 2-groups.

Hint: The GAP-function `TransformingPermutationsCharacterTables` may be used to decide whether or not a pair of groups forms a Brauer pair. But it is not feasible to use it for all pairs of a larger collection of groups. So one should first use necessary conditions which are easily decided.