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Title: Minimal Permutation Representations of Groups
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The minimal degree of a group G, denoted $\mu(G)$, is the smallest non-negative integer n such that G can be embedded into the symmetric group on n elements. The minimal degree interacts in an interesting way with direct products and an effort has been made to classify groups G and H for which $\mu(G \times H) = \mu(G) + \mu(H)$, which is the largest possible minimal degree for a direct product in this manner. We shall give a short overview on the progress towards this goal, before looking at the progress towards, in a sense, the opposite goal - if G and H are two groups such that $\mu(G) \geq \mu(H)$, when does $\mu(G \times H) = \mu(G)$?