

Title: Generalization of Wolstenholme's and Morley's congruences

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In this paper, we show that for any prime $p \geq 11$ and any p -integer α , we have $\binom{\alpha p - 1}{p - 1} \equiv 1 - \alpha(\alpha - 1)(\alpha^2 - \alpha - 1)p \sum_{k=1}^{p-1} \frac{1}{k} + \alpha^2(\alpha - 1)^2 p^2 \sum_{1 \leq i < j \leq p-1} \frac{1}{ij} \pmod{p^7}$. This congruence generalizes the congruences of Wolstenholme, Morley, Glaisher, Carlitz, McIntosh, Tauraso and Meštrović. Furthermore, it allows to re-discover the congruences of Glaisher, Carlitz and Zhao in a simple way.

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