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Distributive Mendelsohn triple systems and the Eisenstein integers.

We study Mendelsohn triple systems whose quasigroup multiplication is self-distributive; that is, $x(yz) = (xy)(xz)$, $(zy)x = (zx)(yx)$. Building on the work of Donovan et al. we give a direct product decomposition for any such system whose point set has order coprime with 3. This allows for a complete description and enumeration of isomorphism classes. We present the complications related to the case in which the point set is divisible by 3. (Received September 16, 2019)