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**A domain decomposition method that converges in two
steps for three subdomains.**

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In Schwarz-like domain decomposition methods, a domain Ω is broken into two or more subdomains and Dirichlet, Neumann, Robin or pseudo-differential problems are iteratively solved on each subdomain. For certain problems, it is well-known that the Dirichlet-Neumann iteration for two subdomains will converge in two steps. Let Ω be an open domain and $\Omega_1, \Omega_2, \Omega_3$ a domain decomposition of Ω such that each pair of subdomains shares an interface (for instance, $\Omega = \{z \in \mathbb{C} \mid |z| < 1\}$ and $\Omega_j = \{re^{i\theta} \mid 0 < r < 1 \text{ and } \theta \in (2j\pi/3, 2(j+1)\pi/3)\}$, $j = 1, 2, 3$.) We will show a new Schwarz-like domain decomposition method that converges in two iterations in this situation.