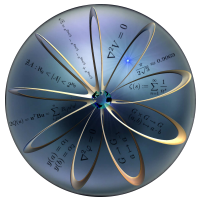

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## simple pole

| | |
|---|---|
| Canonical name | SimplePole |
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A *simple pole* is a pole of order 1. That is, a meromorphic function $f$ has a simple pole at $x_0 \in \mathbb{C}$ if

$$f(z) = \frac{a}{z - x_0} + g(z)$$

where $a \neq 0 \in \mathbb{C}$, and $g$ is holomorphic at $x_0$.

Note that $a$ in the equation above is the residue of $f$ at $x_0$.