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$$SL_{\mathbb{C}}(2) \curvearrowright \mathbb{C}(x,y)$$

Definition.

$$SL_{\mathbb{C}}(2) \curvearrowright \mathbb{C}(x,y)$$

$$x\frac{\partial}{\partial y}, y\frac{\partial}{\partial y}$$

The submodule

$$\mathfrak{sl}(2,\mathbb{C})\frac{1}{x}\cong \mathbb{C}\{y^{k-1}/x^k|k\in \mathbb{Z}_{>0}\}$$

is irreducible and infinite-dimensional representation of $\mathfrak{sl}(2,\mathbb{C})$.

Current note has 0 direct children and 0 total descendants.

- [squishy](#)
 - SL
 - $SL(2)(\mathbb{C})$
 - [rep](#)
 - $SL_{\mathbb{C}}(2) \curvearrowright \mathbb{C}(x,y)$

And it has 1 siblings.

- [squishy](#)
 - SL
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