



Math for the people, by the people.

complex projective line

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Let \mathbb{C} be the set of complex numbers. We define an equivalence relation on $\mathbb{C}^2 - \{0, 0\}$ by

$$(x_1, y_1) \sim (x_2, y_2) \Leftrightarrow \exists \lambda \in \mathbb{C}^* \lambda(x_1, y_1) = (x_2, y_2) \quad (1)$$

The set $\mathbb{C}^2 - \{0, 0\} / \sim$ is a projective variety called the complex projective line.