

Here are the major types of transformations of the plane.

Transformation	Notation
Reflection across line L	r_L
Rotation about point x by angle θ	$\rho_{x,\theta}$
Translation by vector \vec{v}	$\tau_{\vec{v}}$
"Glide reflection": first reflect across line L , then translate by vector \vec{v}	$\gamma_{L,\vec{v}}$
Dilation about point x with constant factor k	$\delta_{x,k}$

Most of these Greek letters are mnemonics for the type of transformation they denote (ρ = rho = rotation; τ = tau = translation; γ = gamma = glide reflection; δ = delta = dilation). The exception is r for reflection.