Transformation Geometry

Type of Transformation	Orientation	Isometry
Reflection ex: $r_{(x\text{-}axis)}$	*Reverses* Orientation: (orientation Not maintained)	**Yes**, it is an isometry since size remains the same.
Translation (aka a "slide" or "glide") ex: $T_{(-3,2)}$ or $T_{(0,6)}$	Maintains Orientation: Orientation (or direction) of points *does not change*!	**Yes**, it is an isometry since size remains the same.
Rotation ex: $R_{(origin)}$ or $R_{(o)}$	Maintains Orientation: Orientation (or direction) of points *does not change*!	**Yes**, it is an isometry since size remains the same.
Dilation ex: $D_{(2)}$ or $D_{(½)}$	Maintains Orientation: Orientation (or direction) of points *does not change*!	**No**, is not an isometry since size is different.
Glide Reflection	*Reverses* Orientation: Orientation (or direction) of points *does change*!	**Yes**, it is an isometry since size remains the same.