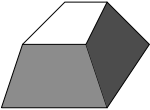
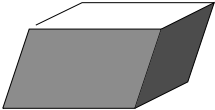

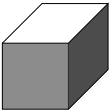


Group	Matrix	Distortion	Invariant properties
Projective 15 dof	$\begin{bmatrix} \mathbf{A} & \mathbf{t} \\ \mathbf{v}^T & v \end{bmatrix}$		Intersection and tangency of surfaces in contact. Sign of Gaussian curvature.
Affine 12 dof	$\begin{bmatrix} \mathbf{A} & \mathbf{t} \\ \mathbf{0}^T & 1 \end{bmatrix}$		Parallelism of planes, volume ratios, centroids. The plane at infinity, $\pi_\infty$ , (see section 3.5).
Similarity 7 dof	$\begin{bmatrix} s\mathbf{R} & \mathbf{t} \\ \mathbf{0}^T & 1 \end{bmatrix}$		The absolute conic, $\Omega_\infty$ , (see section 3.6).
Euclidean 6 dof	$\begin{bmatrix} \mathbf{R} & \mathbf{t} \\ \mathbf{0}^T & 1 \end{bmatrix}$		Volume.