1023-52-1900   **Dennis Glenn Collins*** (`d_collins_pr@hotmail.com`), Dept. of Math, UPR-Mayaguez, Box 9018, Mayaguez, PR 00681-9018. *An algorithm to measure symmetry of n points.* Preliminary report.

An algorithm is given to measure the symmetry of n points by counting the number of "elementary symmetric recognition acts," locally as number of equal distances from a given point, added over all points, and globally as number of equal distances regardless of origin of measurement. For example the local symmetry of the four points defining a square is 4, since there is one equal distance from each corner to adjacent corners, and the global symmetry is 7, since any pair of sides are the same length C(4,2)=6 plus the pair of diagonals. Some formulas for special cases are presented. (Received September 27, 2006)