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SUBROUTINE SBAREA
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## Description

This routine computes the area of a basin using the user specified points and approximates the number of grid points in the basin.

Calling Sequence
CALL SBAREA (X,Y,NBPTS,GRIDL,NGRID,AREA, ISTAT)

Argument List
Input/

| Argument | Output | Type | Dimension | Description |
| :---: | :---: | :---: | :---: | :---: |
| X | I | R * 4 | NBPTS | Array of $X$ coordinate basin boundary points |
| Y | I | $R * 4$ | NBPTS | Array of $Y$ coordinate basin boundary points |
| NBPTS | I | I * 4 | 1 | Number of basin boundary points |
| GRIDL | I | $R * 4$ | 1 | Grid length near the center of the basin |
| NGRID | 0 | I* 4 | 1 | Number of grid points within basin based on computed area |
| AREA | 0 | I * 4 | 1 | Area of the basin (KM2) |
| ISTAT | 0 | I * 4 | 1 | $\begin{gathered} \text { Status code: } \\ 0=\text { okay } \\ 1=\text { error } \end{gathered}$ |

