| PROGRAM TITLE: | SORT TABLE and DEPENDENT VARTABLE (A modification of AN-065) |
| :---: | :---: |
| PROGRAM CLASSIFICATION: | Subroutine |
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| PURPOSE: | Given a table of values of $X$ with |
|  | $X$, in any order to sort the $X$ terms |
|  | from algebraically smallest to |
|  | largest and sort the $Y$ terms with |
| DATE: | June 1962 |

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## DISCLAM:ER

Although it is assumed that all the procautions have been taken to check out this procime theroushiy, no responsibility is taken by the oremeior of ais ereeran for any erroneous reselts, misconceptons, or masemontitene that may aspear in the progrm. Furbamom no ayonablty is ham by A0t-natic indertrial Presebs for the coroct repeductions of this procram. No werranty, express or implied, is extended by the use or application of the program.

## PURPOSE

Given a table of values of $X$ with corresponding values of $Y$ for each $X$, in any order, the routine will sort the $X$ terms from algebraically smallest to largest and sort the $Y$ terms with their corresponding values of $X$.

GENERAL METHOD USED
The smallest value of $X$ is found by an algebraic comparison and then exchanged with the first $X$ value in the table. The corresponding value of $Y$ is then exchanged with the first value of the $Y$ table. Now the table to be sorted is reduced by one and the procedure is repeated until the complete table has been sorted.

## RESTRICTIONS

Data must be in floating point format with $X$ table and $Y$ table each stored sequentially.

The number of $X$ values must not exceed 1,00810

## USAGE

Calling Sequence

$$
\begin{array}{ll}
\text { with } \quad \text { PZE } & \text { L(First X) } \\
\text { PZE } & \text { LIast X) }
\end{array}
$$

in the accumulator prior to entry.
SLL
2 TRA SORT
PZE $\quad \mathrm{L}$ (First Y)
2+1 Normal return
The subroutine is relocatable and occupies locations 0000-0057 or $48{ }_{10}$ full words the contents of $L$ and $V$ are destrojed.

