Median of Sorted Values (SORTVAL)

The program SORTVAL is designed to sort a list of unordered data values and place them in ascending size. A median value (or range), for which the number of entries with lower value are equal to the number with higher value, is determined from the ordered list. The presence of outliers in a data set are often first indicated when the median of a data set differs greatly from the mean (average) value of the set. SORTVAL is run from the computer DOS mode; simply enter the program name and touch ENTER on your keyboard. You will be asked to enter the total number of values in your list and then enter the data. For an odd number of data samples, the exact median is computed; for an even number of data samples, the boundary values for the median are found. The results of the program are displayed on your screen. However, you are given the opportunity also to have the results sent to your printer. An example screen is shown below.

```
Enter number of values to sort? 5
 5  values to sort
Input number  1  value
? 12
A( 1 )= 12
Is this value correct (type Y or N)? y
Input number  2  value
? 15
A( 2 )= 15
Is this value correct (type Y or N)? y
Input number  3  value
? 7
A( 3 )= 7
Is this value correct (type Y or N)? y
Input number  4  value
? 9
A( 4 )= 9
Is this value correct (type Y or N)? y
Input number  5  value
? 10
A( 5 )= 10
Is this value correct (type Y or N)? y



Ordered values are
 A( 1 )= 7   A( 2 )= 9   A( 3 )= 10   A( 4 )= 12   A( 5 )= 15
Of the  5  odd number of values listed, the median is
the value  10
```