# Problem of the Week <br> Problem B and Solution <br> Line Up These Letters! 

## Problem

Determine the number corresponding to each letter so that the two number lines in each box have the same range. The first letter has been done for you.


Then write the numbers in the table below, in order from least to greatest, along with their corresponding letters in the row below. The corresponding letters will spell a mathematical term!

| Numbers |  |  |  | 15.8 |  |  |  |
| :---: | :--- | :--- | :--- | :---: | :--- | :--- | :--- |
| Letters |  |  |  | $I$ |  |  |  |

## Solution

In each case, the range of the number line with the given end points must first be determined. These are shown above the top number line in each box. For example, the range of the number line in the first box is $6.7-1.2=5.5$.
Then the unknown endpoint on the bottom number line can be determined by either addition or subtraction. For example, in the first box, $I=10.3+5.5=15.8$.

The calculations for each box are shown in the following diagram.


When the numbers are written in order from least to greatest, along with their corresponding letters, the letters spell the word DECIMAL, as shown.

| Numbers | 1.9 | 3.93 | 4.65 | 15.8 | 22.5 | 24.22 | 34.9 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Letters | $D$ | $E$ | $C$ | $I$ | $M$ | $A$ | $L$ |

