728 Scatter Point Plot

This problem deals with generating a plot of points that fit on the display screen. The Y axis is vertical and contains 20 lines (one Y value for each row); the X axis is horizontal and contains 12 positions (each X value takes 5 columns).

Input

1st line	low X value and X axis increment
2nd line	low Y value and Y axis increment
	Followed by one X value and one Y value per line.
	They will be positive integers up to 4 digits.

Output

Using the output file, character display a X,Y plot including grid lines and axis labelling as shown in the sample below. Print Y-values right-justified in a field of width 4 ans ':' in column number five. None of the lines in the output file will contain trailing blanks. That is, every line will end with the last non-blank character in it.

All pairs of X, Y values will be inputted and the lowest and highest needs to be found to determine scaling values. The increment for each row or column will be based on 20 positions for the Y axis and 12 for the X axis. When establishing what position a value will fall on rounding is to be done up at the halfway point to the next increment value.

If only one X, Y value falls at a particular point display the character 1. If two X, Y values fall at a particular point display the character 2; if three X, Y values fall at a particular point display the character 3; etc.

In case that there were ten or more X, Y values falling at a point, the numbers have to be *centered* on the cross-marks in the following way:

```
1000
 100
 10
  1
...+----+----+...
```

Sample Input

```
100 50
0 5
100,20
101,22
100,23
100,0
100,3
649,0
649,3
647,2
500,85
206,21
325,43
612,8
129,19
501,83
```

Sample Output