7. The following two arrays represent the fixed and variable costs involved in producing each of eight items:

```
float fixed[]    =  { 11.31, 12.12, 13.67, 11.91, 12.30,
                      11.8, 11.00, 12.00 } ;

float variable[] = { 1.12, 1.13, 3.14, 1.35, 2.20, 1.28,
                      1.00, 2.10 } ;
```

   Write a program to input an item number in the range 1 to 8 along with the number of units produced. The program should then display the cost of producing that number of units.

8. Use two `for` loops to set all the diagonal elements of a 9 by 9 integer array to 1 and all the elements not on a diagonal to 0.

9. Write a program to input values to a 4 by 5 array, search the array for values that are less than 0 and display these values along with their row and column indices.

10. Write a program to input ten integer values into an array `unsorted`. Your program should then loop through `unsorted` ten times, selecting the lowest value during each pass. For each pass through the loop, the element in `unsorted` containing the lowest value is replaced with a large value (e.g. 9999) after copying it into the next available element of another integer array `sorted`.

    This is illustrated below:

    `unsorted` at the start: 14 22 67 31 89 11 42 35 65 49
    `sorted` at the start:

    `unsorted` after the first pass: 14 22 67 31 89 9999 42 35 65 49
    `sorted` after the first pass: 11

    `unsorted` after the second pass: 9999 22 67 31 89 9999 42 35 65 49
    `sorted` after the second pass: 11 14

    etc.

    Display the values in `sorted`. (Hint: see program P7C to determine the smallest value.)

11. In a magic square the rows, columns and diagonals all have the same sum. For example:

17	24	1	8	15
23	5	7	14	16
4	6	13	20	22
10	12	19	21	3
11	18	25	2	9

and

4	9	2
3	5	7
8	1	6

    Write a program to read in a two-dimensional integer array and check if it is a magic square.