

Problem 1 - Bed Bugs

Test Input:

```
5
twin 4 1 1
king 2 5 3
full 6 4 2
queen 6 4 5
twin 5 5 1
```

Test Output:

```
...
...
X..
.X.
X..
...

..X.X.X
.X.X.X.
..X.X.X
...X.X.
....X..
.....
.....

....
....
....
...X
..X.
.X.X

...X.
..X.X
.X.X.
X.X.X
.X.X.
X.X.X
.X.X.

...
...
...
...
...
...
```

Problem 2 - Census

Test Input:

```
8
100 9900
27 1379
99 103
812 406
3 471834
1 1
1 2
2 2147483647
```

Test Output:

```
99
52
2
1
157278
1
2
1073741824
```

Problem 3 - Euros

Test Input:

```
6
$6492848.26
$4210872.43
$2461543.97
$184713.18
$94310.64
$34823.19
```

Test Output:

```
EUR 4.813.148,42
EUR 3.121.519,73
EUR 1.824.742,54
EUR 136.927,88
EUR 69.912,48
EUR 25.814,43
```

Problem 4 - Face

Input: None

Sample Output: answers will vary...mimumum 5X5, maximum 10X10, must contain at least one each \ and ", in other words accept just about anything within the size limits, and that contains the \ and ", even if it is a bad face! 😊

```
\\ \ \ / / / /
(  o  o  )
 \  ^  /
   --
  " "
```

Problem 5 - HourGlass

Test Input:

7 19 9 11 13 21

Test Output: Note – if a solution is hardcoded, it is up to you whether or not to accept it. For the time it would take for a team to hardcode each output, they would be sacrificing time for the other problems, and probably won't do that well...YOU MAKE THE CALL – just be consistent for all teams with your decision!

[illegible][illegible]

Problem 6 - Neutrinos

Test Input:

```
8
450
1000
10000
34
93000000
45
0
8
```

Test Output:

```
60.39
134.21
1342.05
4.56
12481075.44
6.04
0.00
1.07
```

Problem 7 - In The Red

Test Input:

```

999.99
9
C 8250.55
D 12397.45
D 12345.67
C 15492.59
C 5000000
D 9999.99
D 55555.55
D 5499999.99
C 565555.51
    
```

Test Output:

	DEBIT	CREDIT	BALANCE
			\$ 999.99
	\$ 8,250.55		\$ 9,250.54
\$ 12,397.45			\$ (3,146.91)
\$ 12,345.67			\$ (15,492.58)
	\$ 15,492.59		\$ 0.01
	\$5,000,000.00		\$5,000,000.01
\$ 9,999.99			\$4,990,000.02
\$ 55,555.55			\$4,934,444.47
\$5,499,999.99			\$ (565,555.52)
	\$ 565,555.51		\$ (0.01)

Problem 8 - Full Body Scanner

Test Input:

7

JOHN DOE
MARY JONES
ROBERT MOORE
DOUG WILSON
MARIA WILLIAMS
BARACK OBAMA
RICK PERRY

Test Output:

DOE, J.
JONES, M.
MOORE, R.
WILSON, D.
WILLIAMS, M.
OBAMA, B.
PERRY, R.

Problem 9 - Spill

Test Input:

```
6
7 4 4
4 3 2
5 5 5
3 2 3
8 1 1
6 3 4
```

Test Output:

```
<<<<<^X
v<<<^^^
vv<^^^^
vvvO^^^
vvv>>>^^
vv>>>>^
v>>>>>>
```

```
X<^*
<^^*
vO^*
v>>*
```

```
*****
*****
*****
***<^
***XO
```

```
*<^
*vO
*vX
```

```
X*****
*****
*****
*****
*****
*****
*****
*****
```

```
*<<<^X
*v<^^^
*vO^^
*v>>>^
*v>>>>
*****
```

Problem 10 - Summation

Test Input:

```
7
1 5
2 7
3 4
9 12
1 2
10 20
1 1
```

Test Output:

```
35
83
16
244
4
1375
71
```

Problem 11 - Tiger

Test Input:

```
8
Larry Moe Curly Stephen Thomas George Ethan Allen
Larry 1
Stephen
Moe 1
Stephen
Curly 2
Larry
Moe
Stephen 3
Thomas
George
Allen
Thomas 1
Ethan
George 1
Stephen
Ethan 4
Larry
Moe
Thomas
George
Allen 1
Curly
```

Test Output:

```
Allen
George
Larry
Moe
Thomas
```

Problem 12 - Wimbledon

Test Input:

```
10
3-3
7-5
0-4
1-0
3-6
5-2
7-8
9-9
0-0
6-2
```

Test Output:

```
three all
set
love - four
one - love
set
five - two
seven - eight
nine all
love all
set
```