

# CPSC 231 (Winter 2017)

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# Problem statement 1

- Write a program that will calculate geometric mean of  $n$  numbers.
- Run with input redirected in from a file, i.e.,  
`python3 program.py < datafile`
- Store these numbers into a LIST.
- Then traverse the list again to calculate geometric mean.

# Example input 1

- Content of a datafile can be as follows

1.23

42.0

12.8

999.9

EOF

# Example input 2

- Content of a datafile can be as follows

1.0

2.0

3.0

4.0

5.0

EOF

# Problem statement 2

0	1	1	0
1	1	1	1
1	0	0	0
1	0	0	1
0	1	1	0

```
bm = [
    [0, 1, 1, 0],
    [1, 1, 1, 1],
    [1, 0, 0, 0],
    [1, 0, 0, 1],
    [0, 1, 1, 0]
]
```

```

  XX
 _ _
XXXX
X   _
X   _
X   X
 _ _
  XX
 _ _
```

Output

```

  XX
 _ _
X   X
 _ _
X   _
 _ _
XXXX
 _ _
  XX
 _ _
```

Vertically Flipped

# Problem statement 2

- For flipping
  - Printing in reverse order
    - Do it first. However it is not an actual flipping
  - For actual flipping, you need to vertically flip the content of **bm** in place.

Thank you