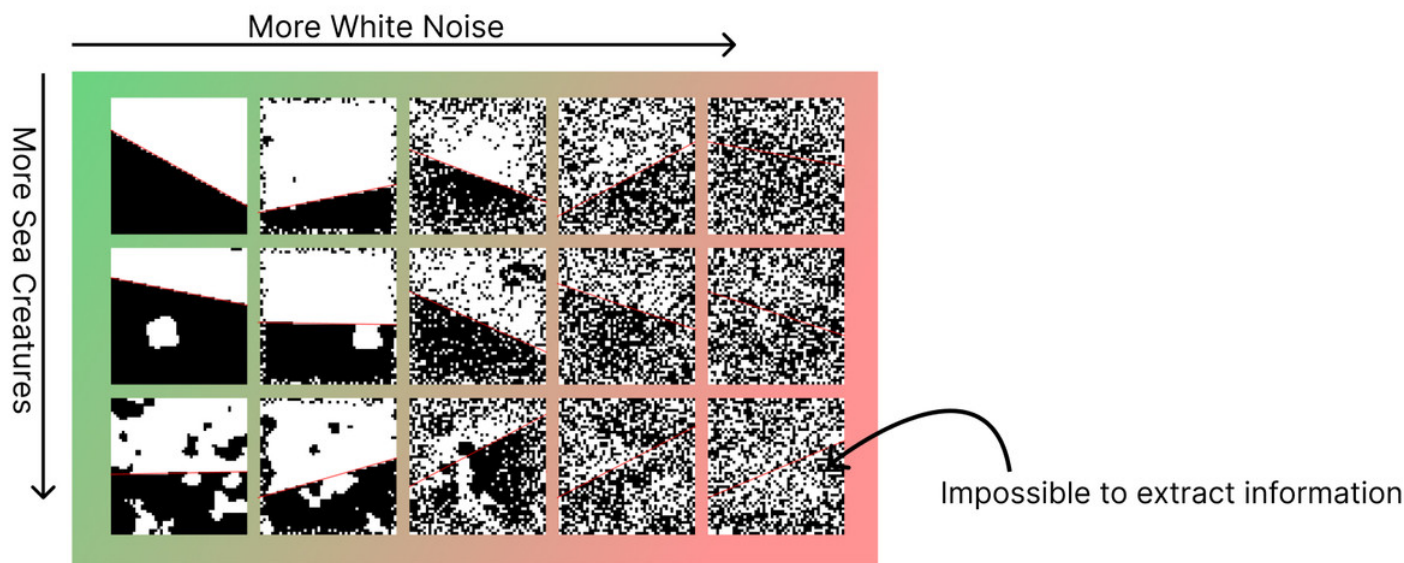


The Under Water Vision

NASA deployed under water cameras to detect the movement of the earth's tectonic plates. Cameras are stationed above the border of the plates deep down in the ocean. However when the images are received they found out that there are many defects in the image. Each image is affected by a combination of two artifacts and images have been distorted so much that any information cannot be extracted from it.

- 1. White noise (more intense on the edges)
- 2. Sea creatures blocking the view of the camera



You are hired to extract as much information as possible from these images.

Inaccurate information will have a penalty. Answer only if you are confident about the image.

Input Format

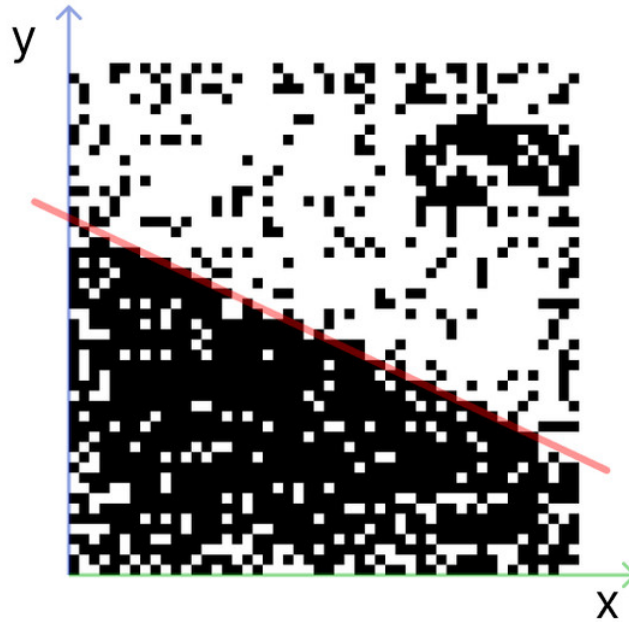
- first line contains an integer **N** - The number of images to analyze
- The next lines are repeated **N** times per each image
 - empty line (to separate each image)
 - 50 lines for each row of the image frame each consisting 50 characters (0 or 1) per pixel of the image. (0 - White; 1 - Black)

Constraints

- **1 ≤ N ≤ 50**
- The camera resolution is **50x50** pixels
- Plate margin is a **straight line**
- Plate margin **always crosses the left and right edges of the image frame**

Output Format

- You should output N lines (one line per image) as follows
 - two space separated floating point numbers **m c** - where m is the gradient and c is the y intercept of the straight line of the tectonic margin in a cartesian coordinate with the origin at the bottom left corner of the image and x any y axes towards the top and right directions respectively. (positive or negative score)
 - "x"** - if you are **not confident** about the image (0 score)

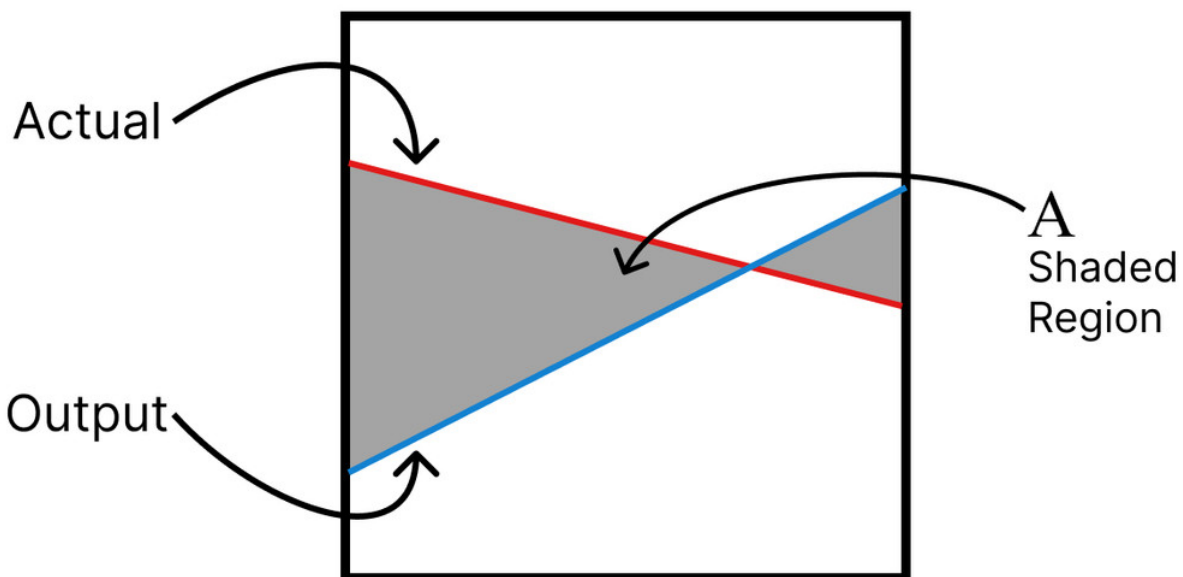


Scoring Method

Each image will get a score according to the following equation.

$$2 \times 2^{-\left(\frac{A}{150}\right)^2} - 1$$

Where **A** is the area between the output tectonic plate line and the actual tectonic plate line.



Score for the test case will be the average of the scores of the images within the test case. However the score for the test case will never drop below zero.

Sample Input 0

[illegible]

```

010101111000010110011001110011110111001100111010000
11001001010011111001101010111011001101100001110111
0111111000100111000000100000111000001101011110001
10110110110100111000110100010101110011001100110000
11001100101000000111110100000001111110100110111011
10000000110100010100010001100001000101101000011010
11111000100000010000011000001010111001111000111010
000010001111010100000001110001010000101011111100
001001110010100001101000110100000101010101001100
10101010000000100101101001011001111001010011100111
0011010010100000100000000101001011110010100010101

```

11011000111111010111001111101011000110111100000110
010100111101001000101011000010010001000010001111101
10001010111000101101101100000000001000011101000001
00000000001000101011001000000010000000000000010101
1101101001101110110000001101000000000001100000010
1101000100100001110011000000010000010100010011001
00001011001100011110011000000100010001001010100001
10101000000000111100001011000001000000000101100010
01100111011100000111000000000101001001001101110100
011011110101001101011101010101000011000101100010
0010010100000000011000000010100000011001011111011
00111001111101100000011101000000001000110001000011
110011111100101011000110001110100001010001011101010
11000010000111011000111100110000100011011000100101
11100010010000000111101100011000000110100000101001
00010001010101111110010110100010000101000110111000
00110000010001001111110111110000100100001101101000
11111000001010000011111101110111011001000000111011
01010000000011101010100011001010000010011010011010
0000101001111010100111111111110111100100010001101
01011001110010100001111001101111000011001011111000
00001111011011110001110111010100011110101000101100
0110011111100100111111011111011100110001000011100
11101010000001111010001111010101000001101010000001
10010111001011101010000111000000101000110010000001
10111101000010111111010001000001001101000000000111
100110001010011101101101101111001110101000000001
00111101001101110100111000010100011011000010101000
10010000000101111000110000000000000010101000110110
00110010011111110111100010110010011101100111111010
00010000110001010000101101101010000000000101001101
10001000111101111001101010000010101111111011111001
00001000101101111010001011101101100111001111011110
11001111100001111110001011111100001010011111110001
01000100000100000010000111000000111000010111010000
0010111100110100000011011101110100100010100101011011
11011110100011101100110001100011100011010111110110
10101111010001111010000100110100010111010000100111
10010000001110101110100111001011111000010110000000

Sample Output 0

0.34387886318934346 5.8237147152576885
0.00617758565472909 7.560358570430488