Inteligencia en Redes de Comunicaciones

Introducción a Weka

Julio Villena Román, Raquel M. Crespo García,
José Jesús García Rueda
{jvillena, rcrespo, rueda}@it.uc3m.es

Universidad
Carlos III de Madrid

El objetivo es poner en práctica los conocimientos de algoritmos de aprendizaje estudiados en teoría, empleando la herramienta Weka.

En primer lugar, descarga e instala Weka 3:
http://www.cs.waikato.ac.nz/ml/weka/index_downloading.html

Puedes bajar un ejecutable o un archivo zip con las clases Java. Si es el caso, descomprime el archivo ZIP y se creará un directorio llamado weka-3-X-X (donde 3-X-X es el número de versión disponible).

Para abrir la aplicación, cámbiate a ese directorio y ejecuta `java -jar weka.jar`.

El objetivo de este ejercicio es entrenar modelos con los conjuntos de datos propuestos (train) para obtener la predicción más precisa posible para los conjuntos de test correspondientes (test).

Luego compara el error obtenido utilizando la medida de error relativo:

$$\epsilon = \sum_{test\ set} \frac{|valor_{real} - valor_{predicho}|}{valor_{real}}$$

1.   LOW BIRTH

1.1   lowbwt-train.arff

1.2   lowbwt-test.arff

1.3   Valores reales de test
2.   CHOLESTEROL

2.1   cholesterol-train.txt

2.2   cholesterol-test.txt

2.3   Valores reales de test
3.   SONAR

3.1   Sonar-train.txt

3.2   Sonar-test.txt

3.3   Valores reales de test

1. Low birth

The goal of this study was to identify risk factors associated with giving birth to a low birth weight baby (weighing less than 2500 grams).

Data were collected on 189 women, 59 of which had low birth weight babies and 130 of which had normal birth weight babies. Four variables which were thought to be of importance were age, weight of the subject at her last menstrual period, race, and the number of physician visits during the first trimester of pregnancy.

Low birth weight is an outcome that has been of concern to physicians for years. This is due to the fact that infant mortality rates and birth defect rates are very high for low birth weight babies. A woman's behavior during pregnancy (including diet, smoking habits, and receiving prenatal care) can greatly alter the chances of carrying the baby to term and, consequently, of delivering a baby of normal birth weight.

The variables identified in the code sheet given in the table have been shown to be associated with low birth weight in the obstetrical literature. The goal of the current study was to ascertain if these variables were important in the population being served by the medical center where the data were collected.

```
Table:  Code Sheet for the Variables in the Low Birth Weight Data Set.
%
% Columns   Variable                                            Abbreviation
% ----------------------------------------------------------------------
% 2-4       Identification Code                                 ID
%
% 10        Low Birth Weight (0 = Birth Weight ge 2500g,        LOW
%                             1 = Birth Weight < 2500g)
%
% 17-18     Age of the Mother in Years                          AGE
%
% 23-25     Weight in Pounds at the Last Menstrual Period       LWT
%
% 32        Race (1 = White, 2 = Black, 3 = Other)              RACE
%
% 40        Smoking Status During Pregnancy (1 = Yes, 0 = No)   SMOKE
%
% 48        History of Premature Labor (0 = None, 1 = One, etc.) PTL
%
% 55        History of Hypertension (1 = Yes, 0 = No)           HT
%
% 61        Presence of Uterine Irritability (1 = Yes, 0 = No)  UI
%
% 67        Number of Physician Visits During the First Trimester FTV
%                 (0 = None, 1 = One, 2 = Two, etc.)
%
% 73-76     Birth Weight in Grams                               BWT
```

References:
1. Hosmer and Lemeshow, Applied Logistic Regression, Wiley, (1989).

As used by Kilpatrick, D. & Cameron-Jones, M. (1998). Numeric prediction using instance-based learning with encoding length selection. In Progress in Connectionist-Based Information Systems. Singapore: Springer-Verlag.

1.1 *lowbwt-train.arff*

```
@relation 'lowbwt'
@attribute LOW { 0, 1}
@attribute AGE real
@attribute LWT real
@attribute RACE { 2, 3, 1}
@attribute SMOKE { 0, 1}
@attribute PTL { 0, 1, 2, 3}
@attribute HT { 0, 1}
@attribute UI { 1, 0}
@attribute FTV { 0, 3, 1, 2, 4, 6}
@attribute class real
@data
0,19,182,2,0,0,0,1,0,2523
0,33,155,3,0,0,0,0,3,2551
0,20,105,1,1,0,0,0,1,2557
0,21,108,1,1,0,0,1,2,2594
0,18,107,1,1,0,0,1,0,2600
0,21,124,3,0,0,0,0,0,2622
```

```
0,22,118,1,0,0,0,0,1,2637
0,17,103,3,0,0,0,0,1,2637
0,29,123,1,1,0,0,0,1,2663
0,26,113,1,1,0,0,0,0,2665
0,19,95,3,0,0,0,0,0,2722
0,19,150,3,0,0,0,0,1,2733
0,22,95,3,0,0,1,0,0,2750
0,30,107,3,0,1,0,1,2,2750
0,18,100,1,1,0,0,0,0,2769
0,18,100,1,1,0,0,0,0,2769
0,15,98,2,0,0,0,0,0,2778
0,25,118,1,1,0,0,0,3,2782
0,20,120,3,0,0,0,1,0,2807
0,28,120,1,1,0,0,0,1,2821
0,32,121,3,0,0,0,0,2,2835
0,31,100,1,0,0,0,1,3,2835
0,36,202,1,0,0,0,0,1,2836
0,28,120,3,0,0,0,0,0,2863
0,25,120,3,0,0,0,1,2,2877
0,28,167,1,0,0,0,0,0,2877
0,17,122,1,1,0,0,0,0,2906
0,29,150,1,0,0,0,0,2,2920
0,26,168,2,1,0,0,0,0,2920
0,17,113,2,0,0,0,0,1,2920
0,17,113,2,0,0,0,0,1,2920
0,24,90,1,1,1,0,0,1,2948
0,35,121,2,1,1,0,0,1,2948
0,25,155,1,0,0,0,0,1,2977
0,25,125,2,0,0,0,0,0,2977
0,29,140,1,1,0,0,0,2,2977
0,19,138,1,1,0,0,0,2,2977
0,27,124,1,1,0,0,0,0,2992
0,31,215,1,1,0,0,0,2,3005
0,33,109,1,1,0,0,0,1,3033
0,21,185,2,1,0,0,0,2,3042
0,19,189,1,0,0,0,0,2,3062
0,23,130,2,0,0,0,0,1,3062
0,21,160,1,0,0,0,0,0,3062
0,18,90,1,1,0,0,1,0,3076
0,18,90,1,1,0,0,1,0,3076
0,32,132,1,0,0,0,0,4,3080
0,19,132,3,0,0,0,0,0,3090
0,24,115,1,0,0,0,0,2,3090
0,22,85,3,1,0,0,0,0,3090
0,22,120,1,0,0,1,0,1,3100
0,23,128,3,0,0,0,0,0,3104
0,22,130,1,1,0,0,0,0,3132
0,30,95,1,1,0,0,0,2,3147
0,19,115,3,0,0,0,0,0,3175
0,16,110,3,0,0,0,0,0,3175
0,21,110,3,1,0,0,1,0,3203
0,30,153,3,0,0,0,0,0,3203
0,20,103,3,0,0,0,0,0,3203
0,17,119,3,0,0,0,0,0,3225
0,17,119,3,0,0,0,0,0,3225
0,23,119,3,0,0,0,0,2,3232
0,24,110,3,0,0,0,0,0,3232
0,28,140,1,0,0,0,0,0,3234
0,26,133,3,1,2,0,0,0,3260
0,20,169,3,0,1,0,1,1,3274
0,24,115,3,0,0,0,0,2,3274
0,28,250,3,1,0,0,0,6,3303
0,20,141,1,0,2,0,1,1,3317
0,22,158,2,0,1,0,0,2,3317
0,22,112,1,1,2,0,0,0,3317
0,31,150,3,1,0,0,0,2,3321
0,23,115,3,1,0,0,0,1,3331
0,16,112,2,0,0,0,0,0,3374
0,16,135,1,1,0,0,0,0,3374
0,18,229,2,0,0,0,0,0,3402
0,25,140,1,0,0,0,0,1,3416
0,32,134,1,1,1,0,0,4,3430
0,20,121,2,1,0,0,0,0,3444
0,23,190,1,0,0,0,0,0,3459
0,22,131,1,0,0,0,0,1,3460
0,32,170,1,0,0,0,0,0,3473
0,30,110,3,0,0,0,0,0,3475
0,20,127,3,0,0,0,0,0,3487
0,23,123,3,0,0,0,0,0,3544
```

```
0,17,120,3,1,0,0,0,0,3572
0,19,105,3,0,0,0,0,0,3572
0,23,130,1,0,0,0,0,0,3586
0,36,175,1,0,0,0,0,0,3600
0,22,125,1,0,0,0,0,1,3614
0,24,133,1,0,0,0,0,0,3614
0,21,134,3,0,0,0,0,2,3629
0,19,235,1,1,0,1,0,0,3629
0,25,95,1,1,3,0,1,0,3637
0,16,135,1,1,0,0,0,0,3643
0,29,135,1,0,0,0,0,1,3651
0,29,154,1,0,0,0,0,1,3651
0,19,147,1,1,0,0,0,0,3651
0,19,147,1,1,0,0,0,0,3651
0,30,137,1,0,0,0,0,1,3699
0,24,110,1,0,0,0,0,1,3728
0,19,184,1,1,0,1,0,0,3756
0,24,110,3,0,1,0,0,0,3770
0,23,110,1,0,0,0,0,1,3770
0,20,120,3,0,0,0,0,0,3770
0,25,241,2,0,0,1,0,0,3790
0,30,112,1,0,0,0,0,1,3799
0,22,169,1,0,0,0,0,0,3827
0,18,120,1,1,0,0,0,2,3856
0,16,170,2,0,0,0,0,4,3860
0,32,186,1,0,0,0,0,2,3860
0,18,120,3,0,0,0,0,1,3884
0,29,130,1,1,0,0,0,2,3884
0,33,117,1,0,0,0,1,1,3912
0,20,170,1,1,0,0,0,0,3940
0,28,134,3,0,0,0,0,1,3941
0,14,135,1,0,0,0,0,0,3941
0,28,130,3,0,0,0,0,0,3969
0,25,120,1,0,0,0,0,2,3983
0,16,95,3,0,0,0,0,1,3997
0,20,158,1,0,0,0,0,1,3997
0,26,160,3,0,0,0,0,0,4054
0,21,115,1,0,0,0,0,1,4054
0,22,129,1,0,0,0,0,0,4111
0,25,130,1,0,0,0,0,2,4153
0,31,120,1,0,0,0,0,2,4167
0,35,170,1,0,1,0,0,1,4174
0,19,120,1,1,0,0,0,0,4238
0,24,116,1,0,0,0,0,1,4593
0,45,123,1,0,0,0,0,1,4990
1,28,120,3,1,1,0,1,0,709
1,29,130,1,0,0,0,1,2,1021
1,34,187,2,1,0,1,0,0,1135
1,25,105,3,0,1,1,0,0,1330
1,25,85,3,0,0,0,1,0,1474
1,27,150,3,0,0,0,0,0,1588
1,23,97,3,0,0,0,1,1,1588
1,24,128,2,0,1,0,0,1,1701
1,24,132,3,0,0,1,0,0,1729
1,21,165,1,1,0,1,0,1,1790
1,32,105,1,1,0,0,0,0,1818
1,19,91,1,1,2,0,1,0,1885
1,25,115,3,0,0,0,0,0,1893
1,16,130,3,0,0,0,0,1,1899
1,25,92,1,1,0,0,0,0,1928
1,20,150,1,1,0,0,0,2,1928
1,21,200,2,0,0,0,1,2,1928
1,24,155,1,1,1,0,0,0,1936
1,21,103,3,0,0,0,0,0,1970
1,20,125,3,0,0,0,1,0,2055
1,25,89,3,0,2,0,0,1,2055
1,19,102,1,0,0,0,0,2,2082
1,19,112,1,1,0,0,1,0,2084
1,26,117,1,1,1,0,0,0,2084
1,24,138,1,0,0,0,0,0,2100
1,17,130,3,1,1,0,1,0,2125
1,20,120,2,1,0,0,0,3,2126
1,22,130,1,1,1,0,1,1,2187
1,27,130,2,0,0,0,1,0,2187
1,20,80,3,1,0,0,1,0,2211
1,17,110,1,1,0,0,0,0,2225
1,25,105,3,0,1,0,0,1,2240
1,20,109,3,0,0,0,0,0,2240
1,18,148,3,0,0,0,0,0,2282
```

```
1,18,110,2,1,1,0,0,0,2296
1,20,121,1,1,1,0,1,0,2296
1,21,100,3,0,1,0,0,4,2301
1,26,96,3,0,0,0,0,0,2325
1,31,102,1,1,1,0,0,1,2353
1,15,110,1,0,0,0,0,0,2353
1,23,187,2,1,0,0,0,1,2367
1,20,122,2,1,0,0,0,0,2381
1,24,105,2,1,0,0,0,0,2381
1,15,115,3,0,0,0,1,0,2381
1,23,120,3,0,0,0,0,0,2395
1,30,142,1,1,1,0,0,0,2410
1,22,130,1,1,0,0,0,1,2410
1,17,120,1,1,0,0,0,3,2414
1,23,110,1,1,1,0,0,0,2424
1,17,120,2,0,0,0,0,2,2438
1,26,154,3,0,1,1,0,1,2442
1,20,105,3,0,0,0,0,3,2450
1,26,190,1,1,0,0,0,0,2466
1,14,101,3,1,1,0,0,0,2466
1,28,95,1,1,0,0,0,2,2466
1,14,100,3,0,0,0,0,2,2495
1,23,94,3,1,0,0,0,0,2495
1,17,142,2,0,0,1,0,0,2495
1,21,130,1,1,0,1,0,3,2495
```

1.2 lowbwt-test.arff

```
@relation 'lowbwt'
@attribute LOW { 0, 1}
@attribute AGE real
@attribute LWT real
@attribute RACE { 2, 3, 1}
@attribute SMOKE { 0, 1}
@attribute PTL { 0, 1, 2, 3}
@attribute HT { 0, 1}
@attribute UI { 1, 0}
@attribute FTV { 0, 3, 1, 2, 4, 6}
@attribute class real
@data
0,28,250,3,1,0,0,0,6,?
1,25,115,3,0,0,0,0,0,?
1,21,130,1,1,0,1,0,3,?
```

1.3 Valores reales de test

Instance	Actual value
1	3303
2	1893
3	2495

2. Cholesterol

This file describes the contents of the heart-disease directory.

This directory contains 4 databases concerning heart disease diagnosis.
   All attributes are numeric-valued. The data was collected from the
   four following locations:

   1. Cleveland Clinic Foundation (cleveland.data)
   2. Hungarian Institute of Cardiology, Budapest (hungarian.data)
   3. V.A. Medical Center, Long Beach, CA (long-beach-va.data)
   4. University Hospital, Zurich, Switzerland (switzerland.data)

   Each database has the same instance format. While the databases have 76

raw attributes, only 14 of them are actually used. Thus I've taken the
liberty of making 2 copies of each database: one with all the attributes
and 1 with the 14 attributes actually used in past experiments.

The authors of the databases have requested:

...that any publications resulting from the use of the data include the
names of the principal investigator responsible for the data collection
at each institution. They would be:

1. Hungarian Institute of Cardiology. Budapest: Andras Janosi, M.D.
2. University Hospital, Zurich, Switzerland: William Steinbrunn, M.D.
3. University Hospital, Basel, Switzerland: Matthias Pfisterer, M.D.
4. V.A. Medical Center, Long Beach and Cleveland Clinic Foundation:
   Robert Detrano, M.D., Ph.D.

```
Attributes -- Only 14 used
  1. #3   (age)
  2. #4   (sex)
  3. #9   (cp)
  4. #10 (trestbps)
  5. #12 (chol)
  6. #16 (fbs)
  7. #19 (restecg)
  8. #32 (thalach)
  9. #38 (exang)
 10. #40 (oldpeak)
 11. #41 (slope)
 12. #44 (ca)
 13. #51 (thal)
 14. #58 (num)          (the predicted attribute)


-- Complete attribute documentation:
  1 id: patient identification number
  2 ccf: social security number (replaced with a dummy value of 0)
  3 age: age in years
  4 sex: sex (1 = male; 0 = female)
  5 painloc: chest pain location (1 = substernal; 0 = otherwise)
  6 painexer (1 = provoked by exertion; 0 = otherwise)
  7 relrest (1 = relieved after rest; 0 = otherwise)
  8 pncaden (sum of 5, 6, and 7)
  9 cp: chest pain type
   -- Value 1: typical angina
   -- Value 2: atypical angina
   -- Value 3: non-anginal pain
   -- Value 4: asymptomatic
 10 trestbps: resting blood pressure (in mm Hg on admission to the
        hospital)
 11 htn
 12 chol: serum cholestoral in mg/dl
 13 smoke: I believe this is 1 = yes; 0 = no (is or is not a smoker)
 14 cigs (cigarettes per day)
 15 years (number of years as a smoker)
 16 fbs: (fasting blood sugar > 120 mg/dl)  (1 = true; 0 = false)
 17 dm (1 = history of diabetes; 0 = no such history)
 18 famhist: family history of coronary artery disease (1 = yes; 0 =
no)
 19 restecg: resting electrocardiographic results
   -- Value 0: normal
   -- Value 1: having ST-T wave abnormality (T wave inversions and/or
ST elevation or depression of > 0.05 mV)
```

-- Value 2: showing probable or definite left ventricular
hypertrophy by Estes' criteria
 20 ekgmo (month of exercise ECG reading)
 21 ekgday(day of exercise ECG reading)
 22 ekgyr (year of exercise ECG reading)
 23 dig (digitalis used furing exercise ECG: 1 = yes; 0 = no)
 24 prop (Beta blocker used during exercise ECG: 1 = yes; 0 = no)
 25 nitr (nitrates used during exercise ECG: 1 = yes; 0 = no)
 26 pro (calcium channel blocker used during exercise ECG: 1 = yes; 0
= no)
 27 diuretic (diuretic used used during exercise ECG: 1 = yes; 0 = no)
 28 proto: exercise protocol
   -- 1 = Bruce
   -- 2 = Kottus
   -- 3 = McHenry
   -- 4 = fast Balke
   -- 5 = Balke
   -- 6 = Noughton
   -- 7 = bike 150 kpa min/min (Not sure if "kpa min/min" is what was
              written!)
   -- 8 = bike 125 kpa min/min
   -- 9 = bike 100 kpa min/min
   -- 10 = bike 75 kpa min/min
   -- 11 = bike 50 kpa min/min
   -- 12 = arm ergometer
 29 thaldur: duration of exercise test in minutes
 30 thaltime: time when ST measure depression was noted
 31 met: mets achieved
 32 thalach: maximum heart rate achieved
 33 thalrest: resting heart rate
 34 tpeakbps: peak exercise blood pressure (first of 2 parts)
 35 tpeakbpd: peak exercise blood pressure (second of 2 parts)
 36 dummy
 37 trestbpd: resting blood pressure
 38 exang: exercise induced angina (1 = yes; 0 = no)
 39 xhypo: (1 = yes; 0 = no)
 40 oldpeak = ST depression induced by exercise relative to rest
 41 slope: the slope of the peak exercise ST segment
  -- Value 1: upsloping
  -- Value 2: flat
  -- Value 3: downsloping
 42 rldv5: height at rest
 43 rldv5e: height at peak exercise
 44 ca: number of major vessels (0-3) colored by flourosopy
 45 restckm: irrelevant
 46 exerckm: irrelevant
 47 restef: rest raidonuclid (sp?) ejection fraction
 48 restwm: rest wall (sp?) motion abnormality
  -- 0 = none
  -- 1 = mild or moderate
  -- 2 = moderate or severe
  -- 3 = akinesis or dyskmem (sp?)
 49 exeref: exercise radinalid (sp?) ejection fraction
 50 exerwm: exercise wall (sp?) motion
 51 thal: 3 = normal; 6 = fixed defect; 7 = reversable defect
 52 thalsev: not used
 53 thalpul: not used
 54 earlobe: not used
 55 cmo: month of cardiac cath (sp?) (perhaps "call")
 56 cday: day of cardiac cath (sp?)
 57 cyr: year of cardiac cath (sp?)
 58 num: diagnosis of heart disease (angiographic disease status)
  -- Value 0: < 50% diameter narrowing

```
   -- Value 1: > 50% diameter narrowing
          (in any major vessel: attributes 59 through 68 are vessels)
  59 lmt
  60 ladprox
  61 laddist
  62 diag
  63 cxmain
  64 ramus
  65 om1
  66 om2
  67 rcaprox
  68 rcadist
  69 lvx1: not used
  70 lvx2: not used
  71 lvx3: not used
  72 lvx4: not used
  73 lvf: not used
  74 cathef: not used
  75 junk: not used
  76 name: last name of patient
          (I replaced this with the dummy string "name")
```

2.1 *cholesterol-train.txt*

(importar a Weka cambiándolo a formato .arff)

```
age   sex   cp  trestbps  fbs  restecg  thalach  exang  oldpeak  slope  ca  thal  num
chol
63  1  1  145  1  2  150  0  2.3  3  0  6  0  233
67  1  4  160  0  2  108  1  1.5  2  3  3  2  286
67  1  4  120  0  2  129  1  2.6  2  2  7  1  229
37  1  3  130  0  0  187  0  3.5  3  0  3  0  250
41  0  2  130  0  2  172  0  1.4  1  0  3  0  204
56  1  2  120  0  0  178  0  0.8  1  0  3  0  236
62  0  4  140  0  2  160  0  3.6  3  2  3  3  268
57  0  4  120  0  0  163  1  0.6  1  0  3  0  354
63  1  4  130  0  2  147  0  1.4  2  1  7  2  254
53  1  4  140  1  2  155  1  3.1  3  0  7  1  203
57  1  4  140  0  0  148  0  0.4  2  0  6  0  192
56  0  2  140  0  2  153  0  1.3  2  0  3  0  294
56  1  3  130  1  2  142  1  0.6  2  1  6  2  256
52  1  3  172  1  0  162  0  0.5  1  0  7  0  199
57  1  3  150  0  0  174  0  1.6  1  0  3  0  168
48  1  2  110  0  0  168  0  1    3  0  7  1  229
54  1  4  140  0  0  160  0  1.2  1  0  3  0  239
48  0  3  130  0  0  139  0  0.2  1  0  3  0  275
49  1  2  130  0  0  171  0  0.6  1  0  3  0  266
64  1  1  110  0  2  144  1  1.8  2  0  3  0  211
58  1  2  120  0  2  160  0  1.8  2  0  3  1  284
58  1  3  132  0  2  173  0  3.2  1  2  7  3  224
60  1  4  130  0  2  132  1  2.4  2  2  7  4  206
50  0  3  120  0  0  158  0  1.6  2  0  3  0  219
58  0  3  120  0  0  172  0  0    1  0  3  0  340
66  0  1  150  0  0  114  0  2.6  3  0  3  0  226
43  1  4  150  0  0  171  0  1.5  1  0  3  0  247
40  1  4  110  0  2  114  1  2    2  0  7  3  167
69  0  1  140  0  0  151  0  1.8  1  2  3  0  239
60  1  4  117  1  0  160  1  1.4  1  2  7  2  230
64  1  3  140  0  0  158  0  0    1  0  3  1  335
59  1  4  135  0  0  161  0  0.5  2  0  7  0  234
44  1  3  130  0  0  179  1  0.4  1  0  3  0  233
42  1  4  140  0  0  178  0  0    1  0  3  0  226
43  1  4  120  0  2  120  1  2.5  2  0  7  3  177
57  1  4  150  0  2  112  1  0.6  2  1  6  1  276
55  1  4  132  0  0  132  1  1.2  2  1  7  3  353
61  1  3  150  1  0  137  1  1    2  0  3  0  243
65  0  4  150  0  2  114  0  1    2  3  7  4  225
40  1  1  140  0  0  178  1  1.4  1  0  7  0  199
71  0  2  160  0  0  162  0  0.4  1  2  3  0  302
59  1  3  150  1  0  157  0  1.6  1  0  3  0  212
61  0  4  130  0  2  169  0  0    1  0  3  1  330
```

```
58  1  3  112  0  2  165  0  2.5  2  1  7  4  230
51  1  3  110  0  0  123  0  0.6  1  0  3  0  175
50  1  4  150  0  2  128  0  2.6  2  0  7  4  243
65  0  3  140  1  2  157  0  0.8  1  1  3  0  417
53  1  3  130  1  2  152  0  1.2  3  0  3  0  197
41  0  2  105  0  0  168  0  0    1  1  3  0  198
65  1  4  120  0  0  140  0  0.4  1  0  7  0  177
44  1  4  112  0  2  153  0  0    1  1  3  2  290
44  1  2  130  0  2  188  0  0    1  0  3  0  219
60  1  4  130  0  0  144  1  1.4  1  1  7  1  253
54  1  4  124  0  2  109  1  2.2  2  1  7  1  266
50  1  3  140  0  0  163  0  0.6  2  1  7  1  233
41  1  4  110  0  2  158  0  0    1  0  7  1  172
54  1  3  125  0  2  152  0  0.5  3  1  3  0  273
51  1  1  125  0  2  125  1  1.4  1  1  3  0  213
51  0  4  130  0  0  142  1  1.2  2  0  7  2  305
46  0  3  142  0  2  160  1  1.4  3  0  3  0  177
58  1  4  128  0  2  131  1  2.2  2  3  7  1  216
54  0  3  135  1  0  170  0  0    1  0  3  0  304
54  1  4  120  0  0  113  0  1.4  2  1  7  2  188
60  1  4  145  0  2  142  1  2.8  2  2  7  2  282
60  1  3  140  0  2  155  0  3    2  0  3  1  185
54  1  3  150  0  2  165  0  1.6  1  0  7  0  232
59  1  4  170  0  2  140  1  3.4  3  0  7  2  326
46  1  3  150  0  0  147  0  3.6  2  0  3  1  231
65  0  3  155  0  0  148  0  0.8  1  0  3  0  269
67  1  4  125  1  0  163  0  0.2  2  2  7  3  254
62  1  4  120  0  0  99   1  1.8  2  2  7  1  267
65  1  4  110  0  2  158  0  0.6  1  2  6  1  248
44  1  4  110  0  2  177  0  0    1  1  3  1  197
60  1  4  125  0  2  141  1  2.8  2  1  7  1  258
51  0  3  140  0  2  142  0  1.5  1  1  3  0  308
48  1  2  130  0  2  180  0  0.2  2  0  3  0  245
58  1  4  150  0  2  111  1  0.8  1  0  7  3  270
45  1  4  104  0  2  148  1  3    2  0  3  0  208
53  0  4  130  0  2  143  0  0.4  2  0  3  0  264
39  1  3  140  0  2  182  0  0    1  0  3  0  321
68  1  3  180  1  2  150  1  1.6  2  0  7  3  274
52  1  2  120  0  0  172  0  0.2  1  0  3  0  325
44  1  3  140  0  2  180  0  0    1  0  3  0  235
47  1  3  138  0  2  156  0  0    1  0  3  0  257
53  0  3  128  0  2  115  0  0    1  0  ?  0  216
53  0  4  138  0  2  160  0  0    1  0  3  0  234
51  0  3  130  0  2  149  0  0.5  1  0  3  0  256
66  1  4  120  0  2  151  0  0.4  2  0  3  0  302
62  0  4  160  0  2  145  0  6.2  3  3  7  3  164
62  1  3  130  0  0  146  0  1.8  2  3  7  0  231
44  0  3  108  0  0  175  0  0.6  2  0  3  0  141
63  0  3  135  0  2  172  0  0    1  0  3  0  252
52  1  4  128  0  0  161  1  0    1  1  7  1  255
59  1  4  110  0  2  142  1  1.2  2  1  7  2  239
52  1  2  134  0  0  158  0  0.8  1  1  3  0  201
48  1  4  122  0  2  186  0  0    1  0  3  0  222
45  1  4  115  0  2  185  0  0    1  0  3  0  260
34  1  1  118  0  2  174  0  0    1  0  3  0  182
57  0  4  128  0  2  159  0  0    1  1  3  0  303
71  0  3  110  1  2  130  0  0    1  1  3  0  265
49  1  3  120  0  0  139  0  2    2  3  7  3  188
54  1  2  108  0  2  156  0  0    1  0  7  0  309
59  1  4  140  0  0  162  1  0    1  1  7  2  177
57  1  3  128  0  2  150  0  0.4  2  1  7  1  229
61  1  4  120  0  0  140  1  3.6  2  1  7  2  260
39  1  4  118  0  0  140  0  1.2  2  0  7  3  219
61  0  4  145  0  2  146  1  1    2  0  7  1  307
56  1  4  125  1  2  144  1  1.2  2  1  3  1  249
52  1  1  118  0  2  190  0  0    2  0  6  0  186
43  0  4  132  1  2  136  1  3    2  0  7  2  341
62  0  3  130  0  0  97   0  1.2  2  1  7  2  263
41  1  2  135  0  0  132  0  0    2  0  6  0  203
58  1  3  140  1  2  165  0  0    1  0  3  0  211
35  0  4  138  0  0  182  0  1.4  1  0  3  0  183
63  1  4  130  1  2  132  1  1.8  1  3  7  3  330
65  1  4  135  0  2  127  0  2.8  2  1  7  2  254
48  1  4  130  1  2  150  1  0    1  2  7  3  256
63  0  4  150  0  2  154  0  4    2  3  7  4  407
51  1  3  100  0  0  143  1  1.2  2  0  3  0  222
55  1  4  140  0  0  111  1  5.6  3  0  7  3  217
65  1  1  138  1  2  174  0  1.4  2  1  3  1  282
45  0  2  130  0  2  175  0  0.6  2  0  3  0  234
```

```
56  0  4  200  1  2  133  1  4    3  2  7  3  288
54  1  4  110  0  0  126  1  2.8  2  1  7  3  239
44  1  2  120  0  0  170  0  0    1  0  3  0  220
62  0  4  124  0  0  163  0  0    1  0  3  0  209
54  1  3  120  0  2  147  0  0.4  2  0  7  0  258
51  1  3  94   0  0  154  1  0    1  1  7  0  227
29  1  2  130  0  2  202  0  0    1  0  3  0  204
51  1  4  140  0  2  186  1  0    1  0  3  0  261
43  0  3  122  0  0  165  0  0.2  2  0  3  0  213
55  0  2  135  0  2  161  0  1.4  2  0  3  0  250
70  1  4  145  0  0  125  1  2.6  3  0  7  4  174
62  1  2  120  0  2  103  0  1.4  2  1  7  3  281
35  1  4  120  0  0  130  1  1.6  2  0  7  1  198
51  1  3  125  1  2  166  0  2.4  2  0  3  0  245
59  1  2  140  0  0  164  1  0    1  0  3  0  221
59  1  1  170  0  2  159  0  0.2  2  0  7  1  288
52  1  2  128  1  0  184  0  0    1  0  3  0  205
64  1  3  125  0  0  131  1  1.8  2  0  7  1  309
58  1  3  105  0  2  154  1  0.6  2  0  7  0  240
47  1  3  108  0  0  152  0  0    1  0  3  1  243
57  1  4  165  1  2  124  0  1    2  3  7  4  289
41  1  3  112  0  0  179  0  0    1  0  3  0  250
45  1  2  128  0  2  170  0  0    1  0  3  0  308
60  0  3  102  0  0  160  0  0    1  1  3  0  318
52  1  1  152  1  0  178  0  1.2  2  0  7  0  298
42  0  4  102  0  2  122  0  0.6  2  0  3  0  265
67  0  3  115  0  2  160  0  1.6  2  0  7  0  564
55  1  4  160  0  2  145  1  0.8  2  1  7  4  289
64  1  4  120  0  2  96   1  2.2  3  1  3  3  246
70  1  4  130  0  2  109  0  2.4  2  3  3  1  322
51  1  4  140  0  0  173  1  1.6  1  0  7  1  299
58  1  4  125  0  2  171  0  0    1  2  7  1  300
60  1  4  140  0  2  170  0  1.2  2  2  7  2  293
68  1  3  118  0  0  151  0  1    1  1  7  0  277
46  1  2  101  1  0  156  0  0    1  0  7  0  197
77  1  4  125  0  2  162  1  0    1  3  3  4  304
54  0  3  110  0  0  158  0  1.6  2  0  3  0  214
58  0  4  100  0  2  122  0  1    2  0  3  0  248
48  1  3  124  1  0  175  0  0    1  2  3  0  255
57  1  4  132  0  0  168  1  0    1  0  7  0  207
52  1  3  138  0  0  169  0  0    1  ?  3  0  223
54  0  2  132  1  2  159  1  0    1  1  3  0  288
35  1  4  126  0  2  156  1  0    1  0  7  1  282
45  0  2  112  0  0  138  0  0    2  0  3  0  160
53  1  4  142  0  2  111  1  0    1  0  7  0  226
59  0  4  174  0  0  143  1  0    2  0  3  1  249
62  0  4  140  0  2  157  0  1.2  2  0  3  0  394
64  1  4  145  0  2  132  0  2    2  2  6  4  212
57  1  4  152  0  0  88   1  1.2  2  1  7  1  274
52  1  4  108  1  0  147  0  0.1  1  3  7  0  233
56  1  4  132  0  2  105  1  2.1  2  1  6  1  184
43  1  3  130  0  0  162  0  1.9  1  1  3  0  315
53  1  3  130  1  2  173  0  0    1  3  3  0  246
48  1  4  124  0  2  166  0  0.5  2  0  7  3  274
56  0  4  134  0  2  150  1  1.9  2  2  7  2  409
42  1  1  148  0  2  178  0  0.8  1  2  3  0  244
59  1  1  178  0  2  145  0  4.2  3  0  7  0  270
60  0  4  158  0  2  161  0  0    1  0  3  1  305
63  0  2  140  0  2  179  0  0    1  2  3  0  195
42  1  3  120  1  0  194  0  0.8  3  0  7  0  240
66  1  2  160  0  0  120  1  0    2  3  6  2  246
54  1  2  192  0  2  195  0  0    1  1  7  1  283
69  1  3  140  0  2  146  0  2    2  3  7  2  254
50  1  3  129  0  0  163  0  0    1  0  3  0  196
51  1  4  140  0  0  122  1  4.2  2  3  7  3  298
43  1  4  132  0  2  143  0  0.1  2  ?  7  1  247
62  0  4  138  1  0  106  0  1.9  2  3  3  2  294
68  0  3  120  0  2  115  0  1.5  2  0  3  0  211
67  1  4  100  0  2  125  1  0.9  2  2  3  3  299
69  1  1  160  1  2  131  0  0.1  2  1  3  0  234
45  0  4  138  0  2  152  1  0.2  2  0  3  0  236
50  0  2  120  0  0  162  0  1.1  1  0  3  0  244
59  1  1  160  0  2  125  0  0    1  0  3  1  273
50  0  4  110  0  2  159  0  0    1  0  3  0  254
64  0  4  180  0  0  154  1  0    1  0  3  0  325
57  1  3  150  1  0  173  0  0.2  1  1  7  0  126
64  0  3  140  0  0  133  0  0.2  1  0  7  0  313
43  1  4  110  0  0  161  0  0    1  0  7  0  211
45  1  4  142  0  2  147  1  0    2  3  7  3  309
```

```
58  1  4  128  0  2  130  1  3    2  2  7  3  259
50  1  4  144  0  2  126  1  0.9  2  0  7  3  200
55  1  2  130  0  0  155  0  0    1  0  3  0  262
62  0  4  150  0  0  154  1  1.4  2  0  3  1  244
37  0  3  120  0  0  170  0  0    1  0  3  0  215
38  1  1  120  0  0  182  1  3.8  2  0  7  4  231
41  1  3  130  0  2  168  0  2    2  0  3  0  214
66  0  4  178  1  0  165  1  1    2  2  7  3  228
52  1  4  112  0  0  160  0  0    1  1  3  1  230
56  1  1  120  0  2  162  0  1.9  2  0  7  0  193
46  0  2  105  0  0  172  0  0    1  0  3  0  204
46  0  4  138  0  2  152  1  0    2  0  3  0  243
64  0  4  130  0  0  122  0  2    2  2  3  0  303
59  1  4  138  0  2  182  0  0    1  0  3  0  271
41  0  3  112  0  2  172  1  0    1  0  3  0  268
54  0  3  108  0  2  167  0  0    1  0  3  0  267
39  0  3  94   0  0  179  0  0    1  0  3  0  199
53  1  4  123  0  0  95   1  2    2  2  7  3  282
63  0  4  108  0  0  169  1  1.8  2  2  3  1  269
34  0  2  118  0  0  192  0  0.7  1  0  3  0  210
47  1  4  112  0  0  143  0  0.1  1  0  3  0  204
67  0  3  152  0  0  172  0  0    1  1  3  0  277
54  1  4  110  0  2  108  1  0    2  1  3  3  206
66  1  4  112  0  2  132  1  0.1  1  1  3  2  212
52  0  3  136  0  2  169  0  0.1  2  0  3  0  196
55  0  4  180  0  1  117  1  3.4  2  0  3  2  327
49  1  3  118  0  2  126  0  0.8  1  3  3  1  149
74  0  2  120  0  2  121  1  0.2  1  1  3  0  269
54  0  3  160  0  0  163  0  0    1  1  3  0  201
54  1  4  122  0  2  116  1  3.2  2  2  3  3  286
56  1  4  130  1  2  103  1  1.6  3  0  7  2  283
46  1  4  120  0  2  144  0  0.8  1  0  7  1  249
49  0  2  134  0  0  162  0  0    2  0  3  0  271
42  1  2  120  0  0  162  0  0    1  0  3  0  295
41  1  2  110  0  0  153  0  0    1  0  3  0  235
41  0  2  126  0  0  163  0  0    1  0  3  0  306
49  0  4  130  0  0  163  0  0    1  0  3  0  269
61  1  1  134  0  0  145  0  2.6  2  2  3  2  234
60  0  3  120  1  0  96   0  0    1  0  3  0  178
67  1  4  120  0  0  71   0  1    2  0  3  2  237
58  1  4  100  0  0  156  0  0.1  1  1  7  2  234
47  1  4  110  0  2  118  1  1    2  1  3  1  275
52  1  4  125  0  0  168  0  1    1  2  7  3  212
62  1  2  128  1  2  140  0  0    1  0  3  0  208
57  1  4  110  0  0  126  1  1.5  2  0  6  0  201
58  1  4  146  0  0  105  0  2    2  1  7  1  218
51  0  3  120  0  2  157  0  0.6  1  0  3  0  295
43  1  4  115  0  0  181  0  1.2  2  0  3  0  303
42  0  3  120  0  0  173  0  0    2  0  3  0  209
67  0  4  106  0  0  142  0  0.3  1  2  3  0  223
76  0  3  140  0  1  116  0  1.1  2  0  3  0  197
70  1  2  156  0  2  143  0  0    1  0  3  0  245
57  1  2  124  0  0  141  0  0.3  1  0  7  1  261
44  0  3  118  0  0  149  0  0.3  2  1  3  0  242
58  0  2  136  1  2  152  0  0    1  2  3  3  319
60  0  1  150  0  0  171  0  0.9  1  0  3  0  240
44  1  3  120  0  0  169  0  0    1  0  3  0  226
61  1  4  138  0  2  125  1  3.6  2  1  3  4  166
42  1  4  136  0  0  125  1  1.8  2  0  6  2  315
52  1  4  128  1  0  156  1  1    2  0  ?  2  204
59  1  3  126  1  0  134  0  2.2  2  1  6  2  218
40  1  4  152  0  0  181  0  0    1  0  7  1  223
42  1  3  130  0  0  150  0  0    1  0  3  0  180
61  1  4  140  0  2  138  1  1.9  1  1  7  1  207
66  1  4  160  0  2  138  0  2.3  1  0  6  0  228
46  1  4  140  0  0  120  1  1.8  2  2  7  2  311
71  0  4  112  0  0  125  0  1.6  2  0  3  0  149
59  1  1  134  0  0  162  0  0.8  1  2  3  1  204
64  1  1  170  0  2  155  0  0.6  2  0  7  0  227
66  0  3  146  0  2  152  0  0    2  1  3  0  278
39  0  3  138  0  0  152  0  0    2  0  3  0  220
57  1  2  154  0  2  164  0  0    1  1  3  1  232
58  0  4  130  0  0  131  0  0.6  2  0  3  0  197
57  1  4  110  0  0  143  1  3    2  1  7  2  335
47  1  3  130  0  0  179  0  0    1  0  3  0  253
55  0  4  128  0  1  130  1  2    2  1  7  3  205
35  1  2  122  0  0  174  0  0    1  0  3  0  192
61  1  4  148  0  0  161  0  0    1  1  7  2  203
58  1  4  114  0  1  140  0  4.4  3  3  6  4  318
```

```
58  0  4  170  1  2  146  1  2.8  2  2  6  2  225
58  1  2  125  0  0  144  0  0.4  2  ?  7  0  220
56  1  2  130  0  2  163  0  0    1  0  7  0  221
56  1  2  120  0  0  169  0  0    3  0  3  0  240
67  1  3  152  0  2  150  0  0.8  2  0  7  1  212
55  0  2  132  0  0  166  0  1.2  1  0  3  0  342
44  1  4  120  0  0  144  1  2.8  3  0  6  2  169
63  1  4  140  0  2  144  1  4    1  2  7  2  187
63  0  4  124  0  0  136  1  0    2  0  3  1  197
41  1  2  120  0  0  182  0  0    1  0  3  0  157
59  1  4  164  1  2  90   0  1    2  2  6  3  176
57  0  4  140  0  0  123  1  0.2  2  0  7  1  241
45  1  1  110  0  0  132  0  1.2  2  0  7  1  264
68  1  4  144  1  0  141  0  3.4  2  2  7  2  193
57  1  4  130  0  0  115  1  1.2  2  1  7  3  131
57  0  2  130  0  2  174  0  0    2  1  3  1  236
38  1  3  138  0  0  173  0  0    1  ?  3  0  175
```

2.2 cholesterol-test.txt

(importar a Weka cambiándolo a formato .arff)

```
age  sex  cp  trestbps  fbs  restecg  thalach  exang  oldpeak  slope  ca  thal  num
chol
44  1  2  120  0  0  173  0  0    1  0  7  0  ?
58  0  1  150  1  2  162  0  1    1  0  3  0  ?
60  0  4  150  0  2  157  0  2.6  2  2  7  3  ?
64  1  4  128  0  0  105  1  0.2  2  1  7  0  ?
65  0  3  160  0  2  151  0  0.8  1  0  3  0  ?
70  1  3  160  0  0  112  1  2.9  2  1  7  3  ?
```

2.3 Valores reales de test

Instance	Actual value
1	263
2	283
3	258
4	263
5	360
6	269

3. Sonar

SUMMARY: This is the data set used by Gorman and Sejnowski in their study of the classification of sonar signals using a neural network [1]. The task is to train a network to discriminate between sonar signals bounced off a metal cylinder and those bounced off a roughly cylindrical rock.

SOURCE: The data set was contributed to the benchmark collection by Terry Sejnowski, now at the Salk Institute and the University of California at San Deigo. The data set was developed in collaboration with R. Paul Gorman of Allied-Signal Aerospace Technology Center.

MAINTAINER: Scott E. Fahlman

PROBLEM DESCRIPTION:

The file "sonar.mines" contains 111 patterns obtained by bouncing sonar signals off a metal cylinder at various angles and under various conditions. The file "sonar.rocks" contains 97 patterns obtained from rocks under similar conditions. The transmitted sonar signal is a   frequency-modulated chirp, rising in frequency. The data set

contains signals obtained from a variety of different aspect angles, spanning 90 degrees for the cylinder and 180 degrees for the rock.

Each pattern is a set of 60 numbers in the range 0.0 to 1.0. Each number represents the energy within a particular frequency band, integrated over a certain period of time. The integration aperture for higher frequencies occur later in time, since these frequencies are transmitted later during the chirp.

The label associated with each record contains the letter "R" if the object is a rock and "M" if it is a mine (metal cylinder). The numbers in the labels are in increasing order of aspect angle, but they do not encode the angle directly.

3.1 Sonar-train.txt

(importar a Weka cambiándolo a formato .arff)

```
1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,3
3,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61
0.02,0.0371,0.0428,0.0207,0.0954,0.0986,0.1539,0.1601,0.3109,0.2111,0.1609,0.1582,0.2238
,0.0645,0.066,0.2273,0.31,0.2999,0.5078,0.4797,0.5783,0.5071,0.4328,0.555,0.6711,0.6415,
0.7104,0.808,0.6791,0.3857,0.1307,0.2604,0.5121,0.7547,0.8537,0.8507,0.6692,0.6097,0.494
3,0.2744,0.051,0.2834,0.2825,0.4256,0.2641,0.1386,0.1051,0.1343,0.0383,0.0324,0.0232,0.0
027,0.0065,0.0159,0.0072,0.0167,0.018,0.0084,0.009,0.0032,Rock
0.0453,0.0523,0.0843,0.0689,0.1183,0.2583,0.2156,0.3481,0.3337,0.2872,0.4918,0.6552,0.69
19,0.7797,0.7464,0.9444,1,0.8874,0.8024,0.7818,0.5212,0.4052,0.3957,0.3914,0.325,0.32,0.
3271,0.2767,0.4423,0.2028,0.3788,0.2947,0.1984,0.2341,0.1306,0.4182,0.3835,0.1057,0.184,
0.197,0.1674,0.0583,0.1401,0.1628,0.0621,0.0203,0.053,0.0742,0.0409,0.0061,0.0125,0.0084
,0.0089,0.0048,0.0094,0.0191,0.014,0.0049,0.0052,0.0044,Rock
0.0262,0.0582,0.1099,0.1083,0.0974,0.228,0.2431,0.3771,0.5598,0.6194,0.6333,0.706,0.5544
,0.532,0.6479,0.6931,0.6759,0.7551,0.8929,0.8619,0.7974,0.6737,0.4293,0.3648,0.5331,0.24
13,0.507,0.8533,0.6036,0.8514,0.8512,0.5045,0.1862,0.2709,0.4232,0.3043,0.6116,0.6756,0.
5375,0.4719,0.4647,0.2587,0.2129,0.2222,0.2111,0.0176,0.1348,0.0744,0.013,0.0106,0.0033,
0.0232,0.0166,0.0095,0.018,0.0244,0.0316,0.0164,0.0095,0.0078,Rock
0.01,0.0171,0.0623,0.0205,0.0205,0.0368,0.1098,0.1276,0.0598,0.1264,0.0881,0.1992,0.0184
,0.2261,0.1729,0.2131,0.0693,0.2281,0.406,0.3973,0.2741,0.369,0.5556,0.4846,0.314,0.5334
,0.5256,0.252,0.209,0.3559,0.626,0.734,0.612,0.3497,0.3953,0.3012,0.5408,0.8814,0.9857,0
.9167,0.6121,0.5006,0.321,0.3202,0.4295,0.3654,0.2655,0.1576,0.0681,0.0294,0.0241,0.0121
,0.0036,0.015,0.0085,0.0073,0.005,0.0044,0.004,0.0117,Rock
0.0762,0.0666,0.0481,0.0394,0.059,0.0649,0.1209,0.2467,0.3564,0.4459,0.4152,0.3952,0.425
6,0.4135,0.4528,0.5326,0.7306,0.6193,0.2032,0.4636,0.4148,0.4292,0.573,0.5399,0.3161,0.2
285,0.6995,1,0.7262,0.4724,0.5103,0.5459,0.2881,0.0981,0.1951,0.4181,0.4604,0.3217,0.282
8,0.243,0.1979,0.2444,0.1847,0.0841,0.0692,0.0528,0.0357,0.0085,0.023,0.0046,0.0156,0.00
31,0.0054,0.0105,0.011,0.0015,0.0072,0.0048,0.0107,0.0094,Rock
0.0286,0.0453,0.0277,0.0174,0.0384,0.099,0.1201,0.1833,0.2105,0.3039,0.2988,0.425,0.6343
,0.8198,1,0.9988,0.9508,0.9025,0.7234,0.5122,0.2074,0.3985,0.589,0.2872,0.2043,0.5782,0.
5389,0.375,0.3411,0.5067,0.558,0.4778,0.3299,0.2198,0.1407,0.2856,0.3807,0.4158,0.4054,0
.3296,0.2707,0.265,0.0723,0.1238,0.1192,0.1089,0.0623,0.0494,0.0264,0.0081,0.0104,0.0045
,0.0014,0.0038,0.0013,0.0089,0.0057,0.0027,0.0051,0.0062,Rock
0.0317,0.0956,0.1321,0.1408,0.1674,0.171,0.0731,0.1401,0.2083,0.3513,0.1786,0.0658,0.051
3,0.3752,0.5419,0.544,0.515,0.4262,0.2024,0.4233,0.7723,0.9735,0.939,0.5559,0.5268,0.682
6,0.5713,0.5429,0.2177,0.2149,0.5811,0.6323,0.2965,0.1873,0.2969,0.5163,0.6153,0.4283,0.
5479,0.6133,0.5017,0.2377,0.1957,0.1749,0.1304,0.0597,0.1124,0.1047,0.0507,0.0159,0.0195
,0.0201,0.0248,0.0131,0.007,0.0138,0.0092,0.0143,0.0036,0.0103,Rock
0.0519,0.0548,0.0842,0.0319,0.1158,0.0922,0.1027,0.0613,0.1465,0.2838,0.2802,0.3086,0.26
57,0.3801,0.5626,0.4376,0.2617,0.1199,0.6676,0.9402,0.7832,0.5352,0.6809,0.9174,0.7613,0
.822,0.8872,0.6091,0.2967,0.1103,0.1318,0.0624,0.099,0.4006,0.3666,0.105,0.1915,0.393,0.
4288,0.2546,0.1151,0.2196,0.1879,0.1437,0.2146,0.236,0.1125,0.0254,0.0285,0.0178,0.0052,
0.0081,0.012,0.0045,0.0121,0.0097,0.0085,0.0047,0.0048,0.0053,Rock
0.0223,0.0375,0.0484,0.0475,0.0647,0.0591,0.0753,0.0098,0.0684,0.1487,0.1156,0.1654,0.38
33,0.3598,0.1713,0.1136,0.0349,0.3796,0.7401,0.9925,0.9802,0.889,0.6712,0.4286,0.3374,0.
7366,0.9611,0.7353,0.4856,0.1594,0.3007,0.4096,0.317,0.3305,0.3408,0.2186,0.2463,0.2726,
0.168,0.2792,0.2558,0.174,0.2121,0.1099,0.0985,0.1271,0.1459,0.1164,0.0777,0.0439,0.0061
,0.0145,0.0128,0.0145,0.0058,0.0049,0.0065,0.0093,0.0059,0.0022,Rock
0.0164,0.0173,0.0347,0.007,0.0187,0.0671,0.1056,0.0697,0.0962,0.0251,0.0801,0.1056,0.126
6,0.089,0.0198,0.1133,0.2826,0.3234,0.3238,0.4333,0.6068,0.7652,0.9203,0.9719,0.9207,0.7
545,0.8289,0.8907,0.7309,0.6896,0.5829,0.4935,0.3101,0.0306,0.0244,0.1108,0.1594,0.1371,
0.0696,0.0452,0.062,0.1421,0.1597,0.1384,0.0372,0.0688,0.0867,0.0513,0.0092,0.0198,0.011
8,0.009,0.0223,0.0179,0.0084,0.0068,0.0032,0.0035,0.0056,0.004,Rock
0.0039,0.0063,0.0152,0.0336,0.031,0.0284,0.0396,0.0272,0.0323,0.0452,0.0492,0.0996,0.142
4,0.1194,0.0628,0.0907,0.1177,0.1429,0.1223,0.1104,0.1847,0.3715,0.4382,0.5707,0.6654,0.
7476,0.7654,0.8555,0.972,0.9221,0.7502,0.7209,0.7757,0.6055,0.5021,0.4499,0.3947,0.4281,
0.4427,0.3749,0.1972,0.0511,0.0793,0.1269,0.1533,0.069,0.0402,0.0534,0.0228,0.0073,0.006
2,0.0062,0.012,0.0052,0.0056,0.0093,0.0042,0.0003,0.0053,0.0036,Rock
```

0.0123,0.0309,0.0169,0.0313,0.0358,0.0102,0.0182,0.0579,0.1122,0.0835,0.0548,0.0847,0.20
26,0.2557,0.187,0.2032,0.1463,0.2849,0.5824,0.7728,0.7852,0.8515,0.5312,0.3653,0.5973,0.
8275,1,0.8673,0.6301,0.4591,0.394,0.2576,0.2817,0.2641,0.2757,0.2698,0.3994,0.4576,0.394
,0.2522,0.1782,0.1354,0.0516,0.0337,0.0894,0.0861,0.0872,0.0445,0.0134,0.0217,0.0188,0.0
133,0.0265,0.0224,0.0074,0.0118,0.0026,0.0092,0.0009,0.0044,Rock
0.009,0.0062,0.0253,0.0489,0.1197,0.1589,0.1392,0.0987,0.0955,0.1895,0.1896,0.2547,0.407
3,0.2988,0.2901,0.5326,0.4022,0.1571,0.3024,0.3907,0.3542,0.4438,0.6414,0.4601,0.6009,0.
869,0.8345,0.7669,0.5081,0.462,0.538,0.5375,0.3844,0.3601,0.7402,0.7761,0.3858,0.0667,0.
3684,0.6114,0.351,0.2312,0.2195,0.3051,0.1937,0.157,0.0479,0.0538,0.0146,0.0068,0.0187,0
.0059,0.0095,0.0194,0.008,0.0152,0.0158,0.0053,0.0189,0.0102,Rock
0.0298,0.0615,0.065,0.0921,0.1615,0.2294,0.2176,0.2033,0.1459,0.0852,0.2476,0.3645,0.277
7,0.2826,0.3237,0.4335,0.5638,0.4555,0.4348,0.6433,0.3932,0.1989,0.354,0.9165,0.9371,0.4
62,0.2771,0.6613,0.8028,0.42,0.5192,0.6962,0.5792,0.8889,0.7863,0.7133,0.7615,0.4401,0.3
009,0.3163,0.2809,0.2898,0.0526,0.1867,0.1553,0.1633,0.1252,0.0748,0.0452,0.0064,0.0154,
0.0031,0.0153,0.0071,0.0212,0.0076,0.0152,0.0049,0.02,0.0073,Rock
0.0352,0.0116,0.0191,0.0469,0.0737,0.1185,0.1683,0.1541,0.1466,0.2912,0.2328,0.2237,0.24
7,0.156,0.3491,0.3308,0.2299,0.2203,0.2493,0.4128,0.3158,0.6191,0.5854,0.3395,0.2561,0.5
599,0.8145,0.6941,0.6985,0.866,0.593,0.3664,0.675,0.8697,0.7837,0.7552,0.5789,0.4713,0.1
252,0.6087,0.7322,0.5977,0.3431,0.1803,0.2378,0.3424,0.2303,0.0689,0.0216,0.0469,0.0426,
0.0346,0.0158,0.0154,0.0109,0.0048,0.0095,0.0015,0.0073,0.0067,Rock
0.0192,0.0607,0.0378,0.0774,0.1388,0.0809,0.0568,0.0219,0.1037,0.1186,0.1237,0.1601,0.35
2,0.4479,0.3769,0.5761,0.6426,0.679,0.7157,0.5466,0.5399,0.6362,0.7849,0.7756,0.578,0.48
62,0.4181,0.2457,0.0716,0.0613,0.1816,0.4493,0.5976,0.3785,0.2495,0.5771,0.8852,0.8409,0
.357,0.3133,0.6096,0.6378,0.2709,0.1419,0.126,0.1288,0.079,0.0829,0.052,0.0216,0.036,0.0
331,0.0131,0.012,0.0108,0.0024,0.0045,0.0037,0.0112,0.0075,Rock
0.027,0.0092,0.0145,0.0278,0.0412,0.0757,0.1026,0.1138,0.0794,0.152,0.1675,0.137,0.1361,
0.1345,0.2144,0.5354,0.683,0.56,0.3093,0.3226,0.443,0.5573,0.5782,0.6173,0.8132,0.9819,0
.9823,0.9166,0.7423,0.7736,0.8473,0.7352,0.6671,0.6083,0.6239,0.5972,0.5715,0.5242,0.292
4,0.1536,0.2003,0.2031,0.2207,0.1778,0.1353,0.1373,0.0749,0.0472,0.0325,0.0179,0.0045,0.
0084,0.001,0.0018,0.0068,0.0039,0.012,0.0132,0.007,0.0088,Rock
0.0126,0.0149,0.0641,0.1732,0.2565,0.2559,0.2947,0.411,0.4983,0.592,0.5832,0.5419,0.5472
,0.5314,0.4981,0.6985,0.8292,0.7839,0.8215,0.9363,1,0.9224,0.7839,0.547,0.4562,0.5922,0.
5448,0.3971,0.0882,0.2385,0.2005,0.0587,0.2544,0.2009,0.0329,0.1547,0.1212,0.2446,0.3171
,0.3195,0.3051,0.0836,0.1266,0.1381,0.1136,0.0516,0.0073,0.0278,0.0372,0.0121,0.0153,0.0
092,0.0035,0.0098,0.0121,0.0006,0.0181,0.0094,0.0116,0.0063,Rock
0.0473,0.0509,0.0819,0.1252,0.1783,0.307,0.3008,0.2362,0.383,0.3759,0.3021,0.2909,0.2301
,0.1411,0.1582,0.243,0.4474,0.5964,0.6744,0.7969,0.8319,0.7813,0.8626,0.7369,0.4122,0.25
96,0.3392,0.3788,0.4488,0.6281,0.7449,0.7328,0.7704,0.787,0.6048,0.586,0.6385,0.7279,0.6
286,0.5316,0.4069,0.1791,0.1625,0.2527,0.1903,0.1643,0.0604,0.0209,0.0436,0.0175,0.0107,
0.0193,0.0118,0.0064,0.0042,0.0054,0.0049,0.0082,0.0028,0.0027,Rock
0.0664,0.0575,0.0842,0.0372,0.0458,0.0771,0.0771,0.113,0.2353,0.1838,0.2869,0.4129,0.364
7,0.1984,0.284,0.4039,0.5837,0.6792,0.6086,0.4858,0.3246,0.2013,0.2082,0.1686,0.2484,0.2
736,0.2984,0.4655,0.699,0.7474,0.7956,0.7981,0.6715,0.6942,0.744,0.8169,0.8912,1,0.8753,
0.7061,0.6803,0.5898,0.4618,0.3639,0.1492,0.1216,0.1306,0.1198,0.0578,0.0235,0.0135,0.01
41,0.019,0.0043,0.0036,0.0026,0.0024,0.0162,0.0109,0.0079,Rock
0.0099,0.0484,0.0299,0.0297,0.0652,0.1077,0.2363,0.2385,0.0075,0.1882,0.1456,0.1892,0.31
76,0.134,0.2169,0.2458,0.2589,0.2786,0.2298,0.0656,0.1441,0.1179,0.1668,0.1783,0.2476,0.
257,0.1036,0.5356,0.7124,0.6291,0.4756,0.6015,0.7208,0.6234,0.5725,0.7523,0.8712,0.9252,
0.9709,0.9297,0.8995,0.7911,0.56,0.2838,0.4407,0.5507,0.4331,0.2905,0.1981,0.0779,0.0396
,0.0173,0.0149,0.0115,0.0202,0.0139,0.0029,0.016,0.0106,0.0134,Rock
0.0115,0.015,0.0136,0.0076,0.0211,0.1058,0.1023,0.044,0.0931,0.0734,0.074,0.0622,0.1055,
0.1183,0.1721,0.2584,0.3232,0.3817,0.4243,0.4217,0.4449,0.4075,0.3306,0.4012,0.4466,0.52
18,0.7552,0.9503,1,0.9084,0.8283,0.7571,0.7262,0.6152,0.568,0.5757,0.5324,0.3672,0.1669,
0.0866,0.0646,0.1891,0.2683,0.2887,0.2341,0.1668,0.1015,0.1195,0.0704,0.0167,0.0107,0.00
91,0.0016,0.0084,0.0064,0.0026,0.0029,0.0037,0.007,0.0041,Rock
0.0293,0.0644,0.039,0.0173,0.0476,0.0816,0.0993,0.0315,0.0736,0.086,0.0414,0.0472,0.0835
,0.0938,0.1466,0.0809,0.1179,0.2179,0.3326,0.3258,0.2111,0.2302,0.3361,0.4259,0.4609,0.2
606,0.0874,0.2862,0.5606,0.8344,0.8096,0.725,0.8048,0.9435,1,0.896,0.5516,0.3037,0.2338,
0.2382,0.3318,0.3821,0.1575,0.2228,0.1582,0.1433,0.1634,0.1133,0.0567,0.0133,0.017,0.003
5,0.0052,0.0083,0.0078,0.0075,0.0105,0.016,0.0095,0.0011,Rock
0.0201,0.0026,0.0138,0.0062,0.0133,0.0151,0.0541,0.021,0.0505,0.1097,0.0841,0.0942,0.120
4,0.042,0.0031,0.0162,0.0624,0.2127,0.3436,0.3813,0.3825,0.4764,0.6313,0.7523,0.8675,0.8
788,0.7901,0.8357,0.9631,0.9619,0.9236,0.8903,0.9708,0.9647,0.7892,0.5307,0.2718,0.1953,
0.1374,0.3105,0.379,0.4105,0.3355,0.2998,0.2748,0.2024,0.1043,0.0453,0.0337,0.0122,0.007
2,0.0108,0.007,0.0063,0.003,0.0011,0.0007,0.0024,0.0057,0.0044,Rock
0.0151,0.032,0.0599,0.105,0.1163,0.1734,0.1679,0.1119,0.0889,0.1205,0.0847,0.1518,0.2305
,0.2793,0.3404,0.4527,0.695,0.8807,0.9154,0.7542,0.6736,0.7146,0.8335,0.7701,0.6993,0.65
43,0.504,0.4926,0.4992,0.4161,0.1631,0.0404,0.0637,0.2962,0.3609,0.1866,0.0476,0.1497,0.
2405,0.198,0.3175,0.2379,0.1716,0.1559,0.1556,0.0422,0.0493,0.0476,0.0219,0.0059,0.0086,
0.0061,0.0015,0.0084,0.0128,0.0054,0.0011,0.0019,0.0023,0.0062,Rock
0.0177,0.03,0.0288,0.0394,0.063,0.0526,0.0688,0.0633,0.0624,0.0613,0.168,0.3476,0.4561,0
.5188,0.6308,0.7201,0.5153,0.3818,0.2644,0.3345,0.4865,0.6628,0.7389,0.9213,1,0.775,0.55
93,0.6172,0.8635,0.6592,0.477,0.4983,0.333,0.3076,0.2876,0.2226,0.0794,0.0603,0.1049,0.0
606,0.153,0.0983,0.1643,0.1901,0.1107,0.1917,0.1467,0.0392,0.0356,0.027,0.0168,0.0102,0.
0122,0.0044,0.0075,0.0124,0.0099,0.0057,0.0032,0.0019,Rock
0.01,0.0275,0.019,0.0371,0.0416,0.0201,0.0314,0.0651,0.1896,0.2668,0.3376,0.3282,0.2432,
0.1268,0.1278,0.4441,0.6795,0.7051,0.7966,0.9401,0.9857,0.8193,0.5789,0.6394,0.7043,0.68
75,0.4081,0.1811,0.2064,0.3917,0.3791,0.2042,0.2227,0.3341,0.3984,0.5077,0.5534,0.3352,0

.2723,0.2278,0.2044,0.1986,0.0835,0.0908,0.138,0.1948,0.1211,0.0843,0.0589,0.0247,0.0118,0.0088,0.0104,0.0036,0.0088,0.0047,0.0117,0.002,0.0091,0.0058,Rock
0.0189,0.0308,0.0197,0.0622,0.008,0.0789,0.144,0.1451,0.1789,0.2522,0.2607,0.371,0.3906,0.2672,0.2716,0.4183,0.6988,0.5733,0.2226,0.2631,0.7473,0.7263,0.3393,0.2824,0.6053,0.5897,0.4967,0.8616,0.8339,0.4084,0.2268,0.1745,0.0507,0.1588,0.304,0.1369,0.1605,0.2061,0.0734,0.0202,0.1638,0.1583,0.183,0.1886,0.1008,0.0663,0.0183,0.0404,0.0108,0.0143,0.0091,0.0038,0.0096,0.0142,0.019,0.014,0.0099,0.0092,0.0052,0.0075,Rock
0.024,0.0218,0.0324,0.0569,0.033,0.0513,0.0897,0.0713,0.0569,0.0389,0.1934,0.2434,0.2906,0.2606,0.3811,0.4997,0.3015,0.3655,0.6791,0.7307,0.5053,0.4441,0.6987,0.8133,0.7781,0.8943,0.8929,0.8913,0.861,0.8063,0.554,0.2446,0.3459,0.1615,0.2467,0.5564,0.4681,0.0979,0.1582,0.0751,0.3321,0.3745,0.2666,0.1078,0.1418,0.1687,0.0738,0.0634,0.0144,0.0226,0.0061,0.0162,0.0146,0.0093,0.0112,0.0094,0.0054,0.0019,0.0066,0.0023,Rock
0.0084,0.0153,0.0291,0.0432,0.0951,0.0752,0.0414,0.0259,0.0692,0.1753,0.197,0.1167,0.1683,0.0814,0.2179,0.5121,0.7231,0.7776,0.6222,0.3501,0.3733,0.2622,0.3776,0.7361,0.8673,0.8223,0.7772,0.7862,0.5652,0.3635,0.3534,0.3865,0.337,0.1693,0.2627,0.3195,0.1388,0.1048,0.1681,0.191,0.1174,0.0933,0.0856,0.0951,0.0986,0.0956,0.0426,0.0407,0.0106,0.0179,0.0056,0.0236,0.0114,0.0136,0.0117,0.006,0.0058,0.0031,0.0072,0.0045,Rock
0.0195,0.0213,0.0058,0.019,0.0319,0.0571,0.1004,0.0668,0.0691,0.0242,0.0728,0.0639,0.3002,0.3854,0.4767,0.4602,0.3175,0.416,0.6428,1,0.8631,0.5212,0.3156,0.5952,0.7732,0.6042,0.4375,0.5487,0.472,0.6235,0.3851,0.159,0.3891,0.5294,0.3504,0.448,0.4041,0.5031,0.6475,0.5493,0.3548,0.2028,0.1882,0.0845,0.1315,0.159,0.0562,0.0617,0.0343,0.037,0.0261,0.0157,0.0074,0.0271,0.0203,0.0089,0.0095,0.0095,0.0021,0.0053,Rock
0.0442,0.0477,0.0049,0.0581,0.0278,0.0678,0.1664,0.149,0.0974,0.1268,0.1109,0.2375,0.2007,0.214,0.1109,0.2036,0.2468,0.6682,0.8345,0.8252,0.8017,0.8982,0.9664,0.8515,0.6626,0.3241,0.2054,0.5669,0.5726,0.4877,0.7532,0.76,0.5185,0.412,0.556,0.5569,0.1336,0.3831,0.4611,0.433,0.2556,0.1466,0.3489,0.2659,0.0944,0.137,0.1344,0.0416,0.0719,0.0637,0.021,0.0204,0.0216,0.0135,0.0055,0.0073,0.008,0.0105,0.0059,0.0105,Rock
0.0311,0.0491,0.0692,0.0831,0.0079,0.02,0.0981,0.1016,0.2025,0.0767,0.1767,0.2555,0.2812,0.2722,0.3227,0.3463,0.5395,0.7911,0.9064,0.8701,0.7672,0.2957,0.4148,0.6043,0.3178,0.3482,0.6158,0.8049,0.6289,0.4999,0.583,0.666,0.4124,0.126,0.2487,0.4676,0.5382,0.315,0.2139,0.1848,0.1679,0.2328,0.1015,0.0713,0.0615,0.0779,0.0761,0.0845,0.0592,0.0068,0.0089,0.0087,0.0032,0.013,0.0188,0.0101,0.0229,0.0182,0.0046,0.0038,Rock
0.0206,0.0132,0.0533,0.0569,0.0647,0.1432,0.1344,0.2041,0.1571,0.1573,0.2327,0.1785,0.1507,0.1916,0.2061,0.2307,0.236,0.1299,0.3812,0.5858,0.4497,0.4876,1,0.8675,0.4718,0.5341,0.6197,0.7143,0.5605,0.3728,0.2481,0.1921,0.1386,0.3325,0.2883,0.3228,0.2607,0.204,0.2396,0.1319,0.0683,0.0334,0.0716,0.0976,0.0787,0.0522,0.05,0.0231,0.0221,0.0144,0.0307,0.0386,0.0147,0.0018,0.01,0.0096,0.0077,0.018,0.0109,0.007,Rock
0.0231,0.0351,0.003,0.0304,0.0339,0.086,0.1738,0.1351,0.1063,0.0347,0.0575,0.1382,0.2274,0.4038,0.5223,0.6847,0.7521,0.776,0.7708,0.8627,1,0.8873,0.8057,0.876,0.9066,0.943,0.8846,0.65,0.297,0.2423,0.2992,0.2285,0.2277,0.1529,0.1037,0.0352,0.1073,0.1373,0.1331,0.1454,0.1115,0.044,0.0762,0.1381,0.0831,0.0654,0.0844,0.0595,0.0497,0.0313,0.0154,0.0106,0.0097,0.0022,0.0052,0.0072,0.0056,0.0038,0.0043,0.003,Rock
0.0094,0.0166,0.0398,0.0359,0.0681,0.0706,0.102,0.0893,0.0381,0.1328,0.1303,0.0273,0.0644,0.0712,0.1204,0.0717,0.1224,0.2349,0.3684,0.3918,0.4925,0.8793,0.9606,0.8786,0.6905,0.6937,0.5674,0.654,0.7802,0.7575,0.5836,0.6316,0.8108,0.9039,0.8647,0.6695,0.4027,0.237,0.2685,0.3662,0.3267,0.22,0.2996,0.2205,0.1163,0.0635,0.0465,0.0422,0.0174,0.0172,0.0134,0.0141,0.0191,0.0145,0.0065,0.0129,0.0217,0.0087,0.0077,0.0122,Rock
0.0333,0.0221,0.027,0.0481,0.0679,0.0981,0.0843,0.1172,0.0759,0.092,0.1475,0.0522,0.1119,0.097,0.1174,0.1678,0.1642,0.1205,0.0494,0.1544,0.3485,0.6146,0.9146,0.9364,0.8677,0.8772,0.8553,0.8833,1,0.8296,0.6601,0.5499,0.5716,0.6859,0.6825,0.5142,0.275,0.1358,0.1551,0.2646,0.1994,0.1883,0.2746,0.1651,0.0575,0.0695,0.0598,0.0456,0.0021,0.0068,0.0036,0.0022,0.0032,0.006,0.0054,0.0063,0.0143,0.0132,0.0051,0.0041,Rock
0.0123,0.0022,0.0196,0.0206,0.018,0.0492,0.0033,0.0398,0.0791,0.0475,0.1152,0.052,0.1192,0.1943,0.184,0.2077,0.1956,0.163,0.1218,0.1017,0.1354,0.3157,0.4645,0.5906,0.6776,0.8119,0.8594,0.9228,0.8387,0.7238,0.6292,0.5181,0.4629,0.5255,0.5147,0.3929,0.1279,0.0411,0.0859,0.1131,0.1306,0.1757,0.2648,0.1955,0.0656,0.058,0.0319,0.0301,0.0272,0.0074,0.0149,0.0125,0.0134,0.0026,0.0038,0.0018,0.0113,0.0058,0.0047,0.0071,Rock
0.0091,0.0213,0.0206,0.0505,0.0657,0.0795,0.097,0.0872,0.0743,0.0837,0.1579,0.0898,0.0309,0.1856,0.2969,0.2032,0.1264,0.1655,0.1661,0.2091,0.231,0.446,0.6634,0.6933,0.7663,0.8206,0.7049,0.756,0.7466,0.6387,0.4846,0.3328,0.5356,0.8741,0.8573,0.6718,0.3446,0.315,0.2702,0.2598,0.2742,0.3594,0.4382,0.246,0.0758,0.0187,0.0797,0.0748,0.0367,0.0155,0.03,0.0112,0.0112,0.0102,0.0026,0.0097,0.0098,0.0043,0.0071,0.0108,Rock
0.0068,0.0232,0.0513,0.0444,0.0249,0.0637,0.0422,0.113,0.1911,0.2475,0.1606,0.0922,0.2398,0.322,0.4295,0.2652,0.0666,0.1442,0.2373,0.2595,0.2493,0.3903,0.6384,0.8037,0.7026,0.6874,0.6997,0.8558,1,0.9621,0.8996,0.7575,0.6902,0.5686,0.4396,0.4546,0.2959,0.1587,0.1681,0.0842,0.1173,0.1754,0.2728,0.1705,0.0194,0.0213,0.0354,0.042,0.0093,0.0204,0.0199,0.0173,0.0163,0.0055,0.0045,0.0068,0.0041,0.0052,0.0194,0.0105,Rock
0.0093,0.0185,0.0056,0.0064,0.026,0.0458,0.047,0.0057,0.0425,0.064,0.0888,0.1599,0.1541,0.2768,0.2176,0.2799,0.3491,0.2824,0.2479,0.3005,0.43,0.4684,0.452,0.5026,0.6217,0.6571,0.6632,0.7321,0.8534,1,0.8448,0.6354,0.6308,0.6211,0.6976,0.5868,0.4889,0.3683,0.2043,0.1469,0.222,0.1449,0.149,0.1211,0.1144,0.0791,0.0365,0.0152,0.0085,0.012,0.0022,0.0069,0.0064,0.0129,0.0114,0.0054,0.0089,0.005,0.0058,0.0025,Rock
0.0211,0.0319,0.0415,0.0286,0.0121,0.0438,0.1299,0.139,0.0695,0.0568,0.0869,0.1935,0.1478,0.1871,0.1994,0.3283,0.6861,0.5814,0.25,0.1734,0.3363,0.5588,0.6592,0.7012,0.8099,0.8901,0.8745,0.7887,0.8725,0.9376,0.892,0.7508,0.6832,0.761,0.9017,1,0.9123,0.7388,0.5915,0.4057,0.3019,0.2331,0.2931,0.2298,0.2391,0.191,0.1096,0.03,0.0171,0.0383,0.0053,0.009,0.0042,0.0153,0.0106,0.002,0.0105,0.0049,0.007,0.008,Rock
0.0093,0.0269,0.0217,0.0339,0.0305,0.1172,0.145,0.0638,0.074,0.136,0.2132,0.3738,0.3738,0.2673,0.2333,0.5367,0.7312,0.7659,0.6271,0.4395,0.433,0.4326,0.5544,0.736,0.8589,0.8989

,0.942,0.9401,0.9379,0.8575,0.7284,0.67,0.7547,0.8773,0.9919,0.9922,0.9419,0.8388,0.6605
,0.4816,0.2917,0.1769,0.1136,0.0701,0.1578,0.1938,0.1106,0.0693,0.0176,0.0205,0.0309,0.0
212,0.0091,0.0056,0.0086,0.0092,0.007,0.0116,0.006,0.011,Rock
0.0257,0.0447,0.0388,0.0239,0.1315,0.1323,0.1608,0.2145,0.0847,0.0561,0.0891,0.0861,0.15
31,0.1524,0.1849,0.2871,0.2009,0.2748,0.5017,0.2172,0.4978,0.5265,0.3647,0.5768,0.5161,0
.5715,0.4006,0.365,0.6685,0.8659,0.8052,0.4082,0.3379,0.5092,0.6776,0.7313,0.6062,0.704,
0.8849,0.8979,0.7751,0.7247,0.7733,0.7762,0.6009,0.4514,0.3096,0.1859,0.0956,0.0206,0.02
06,0.0096,0.0153,0.0096,0.0131,0.0198,0.0025,0.0199,0.0255,0.018,Rock
0.0408,0.0653,0.0397,0.0604,0.0496,0.1817,0.1178,0.1024,0.0583,0.2176,0.2459,0.3332,0.30
87,0.2613,0.3232,0.3731,0.4203,0.5364,0.7062,0.8196,0.8835,0.8299,0.7609,0.7605,0.8367,0
.8905,0.7652,0.5897,0.3037,0.0823,0.2787,0.7241,0.8032,0.805,0.7676,0.7468,0.6253,0.173,
0.2916,0.5003,0.522,0.4824,0.4004,0.3877,0.1651,0.0442,0.0663,0.0418,0.0475,0.0235,0.006
6,0.0062,0.0129,0.0184,0.0069,0.0198,0.0199,0.0102,0.007,0.0055,Rock
0.0308,0.0339,0.0202,0.0889,0.157,0.175,0.092,0.1353,0.1593,0.2795,0.3336,0.294,0.1608,0
.3335,0.4985,0.7295,0.735,0.8253,0.8793,0.9657,1,0.8707,0.6471,0.5973,0.8218,0.7755,0.61
11,0.4195,0.299,0.1354,0.2438,0.5624,0.5555,0.6963,0.7298,0.7022,0.5468,0.1421,0.4738,0.
641,0.4375,0.3178,0.2377,0.2808,0.1374,0.1136,0.1034,0.0688,0.0422,0.0117,0.007,0.0167,0
.0127,0.0138,0.009,0.0051,0.0029,0.0122,0.0056,0.002,Rock
0.0373,0.0281,0.0232,0.0225,0.0179,0.0733,0.0841,0.1031,0.0993,0.0802,0.1564,0.2565,0.26
24,0.1179,0.0597,0.1563,0.2241,0.3586,0.1792,0.3256,0.6079,0.6988,0.8391,0.8553,0.771,0.
6215,0.5736,0.4402,0.4056,0.4411,0.513,0.5965,0.7272,0.6539,0.5902,0.5393,0.4897,0.4081,
0.4145,0.6003,0.7196,0.6633,0.6287,0.4087,0.3212,0.2518,0.1482,0.0988,0.0317,0.0269,0.00
66,0.0008,0.0045,0.0024,0.0006,0.0073,0.0096,0.0054,0.0085,0.006,Rock
0.019,0.0038,0.0642,0.0452,0.0333,0.069,0.0901,0.1454,0.074,0.0349,0.1459,0.3473,0.3197,
0.2823,0.0166,0.0572,0.2164,0.4563,0.3819,0.5627,0.6484,0.7235,0.8242,0.8766,1,0.8582,0.
6563,0.5087,0.4817,0.453,0.4521,0.4532,0.5385,0.5308,0.5356,0.5271,0.426,0.2436,0.1205,0
.3845,0.4107,0.5067,0.4216,0.2479,0.1586,0.1124,0.0651,0.0789,0.0325,0.007,0.0026,0.0093
,0.0118,0.0112,0.0094,0.014,0.0072,0.0022,0.0055,0.0122,Rock
0.0119,0.0582,0.0623,0.06,0.1397,0.1883,0.1422,0.1447,0.0487,0.0864,0.2143,0.372,0.2665,
0.2113,0.1103,0.1136,0.1934,0.4142,0.3279,0.6222,0.7468,0.7676,0.7867,0.8253,1,0.9481,0.
7539,0.6008,0.5437,0.5387,0.5619,0.5141,0.6084,0.5621,0.5956,0.6078,0.5025,0.2829,0.0477
,0.2811,0.3422,0.5147,0.4372,0.247,0.1708,0.1343,0.0838,0.0755,0.0304,0.0074,0.0069,0.00
25,0.0103,0.0074,0.0123,0.0069,0.0076,0.0073,0.003,0.0138,Rock
0.0353,0.0713,0.0326,0.0272,0.037,0.0792,0.1083,0.0687,0.0298,0.088,0.1078,0.0979,0.225,
0.2819,0.2099,0.124,0.1699,0.0939,0.1091,0.141,0.1268,0.3151,0.143,0.2264,0.5756,0.7876,
0.7158,0.5998,0.5583,0.6295,0.7659,0.894,0.8436,0.6807,0.838,1,0.9497,0.7866,0.5647,0.34
8,0.2585,0.2304,0.2948,0.3363,0.3017,0.2193,0.1316,0.1078,0.0559,0.0035,0.0098,0.0163,0.
0242,0.0043,0.0202,0.0108,0.0037,0.0096,0.0093,0.0053,Rock
0.0131,0.0068,0.0308,0.0311,0.0085,0.0767,0.0771,0.064,0.0726,0.0901,0.075,0.0844,0.1226
,0.1619,0.2317,0.2934,0.3526,0.3657,0.3221,0.3093,0.4084,0.4285,0.4663,0.5956,0.6948,0.8
386,0.8875,0.6404,0.3308,0.3425,0.492,0.4592,0.3034,0.4366,0.5175,0.5122,0.4746,0.4902,0
.4603,0.446,0.4196,0.2873,0.2296,0.0949,0.0095,0.0527,0.0383,0.0107,0.0108,0.0077,0.0109
,0.0062,0.0028,0.004,0.0075,0.0039,0.0053,0.0013,0.0052,0.0023,Rock
0.0087,0.0046,0.0081,0.023,0.0586,0.0682,0.0993,0.0717,0.0576,0.0818,0.1315,0.1862,0.278
9,0.2579,0.224,0.2568,0.2933,0.2991,0.3924,0.4691,0.5665,0.6464,0.6774,0.7577,0.8856,0.9
419,1,0.8564,0.679,0.5587,0.4147,0.2946,0.2025,0.0688,0.1171,0.2157,0.2216,0.2776,0.2309
,0.1444,0.1513,0.1745,0.1756,0.1424,0.0908,0.0138,0.0469,0.048,0.0159,0.0045,0.0015,0.00
52,0.0038,0.0079,0.0114,0.005,0.003,0.0064,0.0058,0.003,Rock
0.0293,0.0378,0.0257,0.0062,0.013,0.0612,0.0895,0.1107,0.0973,0.0751,0.0528,0.1209,0.176
3,0.2039,0.2727,0.2321,0.2676,0.2934,0.3295,0.491,0.5402,0.6257,0.6826,0.7527,0.8504,0.8
938,0.9928,0.9134,0.708,0.6318,0.6126,0.4638,0.2797,0.1721,0.1665,0.2561,0.2735,0.3209,0
.2724,0.188,0.1552,0.2522,0.2121,0.1801,0.1473,0.0681,0.1091,0.0919,0.0397,0.0093,0.0076
,0.0065,0.0072,0.0108,0.0051,0.0102,0.0041,0.0055,0.005,0.0087,Rock
0.0132,0.008,0.0188,0.0141,0.0436,0.0668,0.0609,0.0131,0.0899,0.0922,0.1445,0.1475,0.208
7,0.2558,0.2603,0.1985,0.2394,0.3134,0.4077,0.4529,0.4893,0.5666,0.6234,0.6741,0.8282,0.
8823,0.9196,0.8965,0.7549,0.6736,0.6463,0.5007,0.3663,0.2298,0.1362,0.2123,0.2395,0.2673
,0.2865,0.206,0.1659,0.2633,0.2552,0.1696,0.1467,0.1286,0.0926,0.0716,0.0325,0.0258,0.01
36,0.0044,0.0028,0.0021,0.0022,0.0048,0.0138,0.014,0.0028,0.0064,Rock
0.0201,0.0116,0.0123,0.0245,0.0547,0.0208,0.0891,0.0836,0.1335,0.1199,0.1742,0.1387,0.20
42,0.258,0.2616,0.2097,0.2532,0.3213,0.4327,0.476,0.5328,0.6057,0.6696,0.7476,0.893,0.94
05,1,0.9785,0.8473,0.7639,0.6701,0.4989,0.3718,0.2196,0.1416,0.268,0.263,0.3104,0.3392,0
.2123,0.117,0.2655,0.2203,0.1541,0.1464,0.1044,0.1225,0.0745,0.049,0.0224,0.0032,0.0076,
0.0045,0.0056,0.0075,0.0037,0.0045,0.0029,0.0008,0.0018,Rock
0.0152,0.0102,0.0113,0.0263,0.0097,0.0391,0.0857,0.0915,0.0949,0.1504,0.1911,0.2115,0.22
49,0.2573,0.1701,0.2023,0.2538,0.3417,0.4026,0.4553,0.5525,0.5991,0.5854,0.7114,0.95,0.9
858,1,0.9578,0.8642,0.7128,0.5893,0.4323,0.2897,0.1744,0.077,0.2297,0.2459,0.3101,0.3312
,0.222,0.0871,0.2064,0.1808,0.1624,0.112,0.0815,0.1117,0.095,0.0412,0.012,0.0048,0.0049,
0.0041,0.0036,0.0013,0.0046,0.0037,0.0011,0.0034,0.0033,Rock
0.0216,0.0124,0.0174,0.0152,0.0608,0.1026,0.1139,0.0877,0.116,0.0866,0.1564,0.078,0.0997
,0.0915,0.0662,0.1134,0.174,0.2573,0.3294,0.391,0.5438,0.6115,0.7022,0.761,0.7973,0.9105
,0.8807,0.7949,0.799,0.718,0.6407,0.6312,0.5929,0.6168,0.6498,0.6764,0.6253,0.5117,0.389
,0.3273,0.2509,0.153,0.1323,0.1657,0.1215,0.0978,0.0452,0.0273,0.0179,0.0092,0.0018,0.00
52,0.0049,0.0096,0.0134,0.0122,0.0047,0.0018,0.0006,0.0023,Rock
0.0225,0.0019,0.0075,0.0097,0.0445,0.0906,0.0889,0.0655,0.1624,0.1452,0.1442,0.0948,0.06
18,0.1641,0.0708,0.0844,0.259,0.2679,0.3094,0.4678,0.5958,0.7245,0.8773,0.9214,0.9282,0.
9942,1,0.9071,0.8545,0.7293,0.6499,0.6071,0.5588,0.5967,0.6275,0.5459,0.4786,0.3965,0.20
87,0.1651,0.1836,0.0652,0.0758,0.0486,0.0353,0.0297,0.0241,0.0379,0.0119,0.0073,0.0051,0
.0034,0.0129,0.01,0.0044,0.0057,0.003,0.0035,0.0021,0.0027,Rock

0.0125,0.0152,0.0218,0.0175,0.0362,0.0696,0.0873,0.0616,0.1252,0.1302,0.0888,0.05,0.0628,0.1274,0.0801,0.0742,0.2048,0.295,0.3193,0.4567,0.5959,0.7101,0.8225,0.8425,0.9065,0.9802,1,0.8752,0.7583,0.6616,0.5786,0.5128,0.4776,0.4994,0.5197,0.5071,0.4577,0.3505,0.1845,0.189,0.1967,0.1041,0.055,0.0492,0.0622,0.0505,0.0247,0.0219,0.0102,0.0047,0.0019,0.0041,0.0074,0.003,0.005,0.0048,0.0017,0.0041,0.0086,0.0058,Rock
0.013,0.0006,0.0088,0.0456,0.0525,0.0778,0.0931,0.0941,0.1711,0.1483,0.1532,0.11,0.089,0.1236,0.1197,0.1145,0.2137,0.2838,0.364,0.543,0.6673,0.7979,0.9273,0.9027,0.9192,1,0.9821,0.9092,0.8184,0.6962,0.59,0.5447,0.5142,0.5389,0.5531,0.5318,0.4826,0.379,0.1831,0.175,0.1679,0.0674,0.0609,0.0375,0.0533,0.0278,0.0179,0.0114,0.0073,0.0116,0.0092,0.0078,0.0041,0.0013,0.0011,0.0045,0.0039,0.0022,0.0023,0.0016,Rock
0.0135,0.0045,0.0051,0.0289,0.0561,0.0929,0.1031,0.0883,0.1596,0.1908,0.1576,0.1112,0.1197,0.1174,0.1415,0.2215,0.2658,0.2713,0.3862,0.5717,0.6797,0.8747,1,0.8948,0.842,0.9174,0.9307,0.905,0.8228,0.6986,0.5831,0.4924,0.4563,0.5159,0.567,0.5284,0.5144,0.3742,0.2282,0.1193,0.1088,0.0431,0.107,0.0583,0.0046,0.0473,0.0408,0.029,0.0192,0.0094,0.0025,0.0037,0.0084,0.0102,0.0096,0.0024,0.0037,0.0028,0.003,0.003,Rock
0.0086,0.0215,0.0242,0.0445,0.0667,0.0771,0.0499,0.0906,0.1229,0.1185,0.0775,0.1101,0.1042,0.0853,0.0456,0.1304,0.269,0.2947,0.3669,0.4948,0.6275,0.8162,0.9237,0.871,0.8052,0.8756,1,0.9858,0.9427,0.8114,0.6987,0.681,0.6591,0.6954,0.729,0.668,0.5917,0.4899,0.3439,0.2366,0.1716,0.1013,0.0766,0.0845,0.026,0.0333,0.0205,0.0309,0.0101,0.0095,0.0047,0.0072,0.0054,0.0022,0.0016,0.0029,0.0058,0.005,0.0024,0.003,Rock
0.0067,0.0096,0.0024,0.0058,0.0197,0.0618,0.0432,0.0951,0.0836,0.118,0.0978,0.0909,0.0656,0.0593,0.0832,0.1297,0.2038,0.3811,0.4451,0.5224,0.5911,0.6566,0.6308,0.5998,0.4958,0.5647,0.6906,0.8513,1,0.9166,0.7676,0.6177,0.5468,0.5516,0.5463,0.5515,0.4561,0.3466,0.3384,0.2853,0.2502,0.1641,0.1605,0.1491,0.1326,0.0687,0.0602,0.0561,0.0306,0.0154,0.0029,0.0048,0.0023,0.002,0.004,0.0019,0.0034,0.0034,0.0051,0.0031,Rock
0.0071,0.0103,0.0135,0.0494,0.0253,0.0806,0.0701,0.0738,0.0117,0.0898,0.0289,0.1554,0.1437,0.1035,0.1424,0.1227,0.0892,0.2047,0.0827,0.1524,0.3031,0.1608,0.0667,0.1426,0.0395,0.1653,0.3399,0.4855,0.5206,0.5508,0.6102,0.5989,0.6764,0.8897,1,0.9517,0.8459,0.7073,0.6697,0.6326,0.5102,0.4161,0.2816,0.1705,0.1421,0.0971,0.0879,0.0863,0.0355,0.0233,0.0252,0.0043,0.0048,0.0076,0.0124,0.0105,0.0054,0.0032,0.0073,0.0063,Rock
0.0176,0.0172,0.0501,0.0285,0.0262,0.0351,0.0362,0.0535,0.0258,0.0474,0.0526,0.1854,0.104,0.0948,0.0912,0.1688,0.1568,0.0375,0.1316,0.2086,0.1976,0.0946,0.1965,0.1242,0.0616,0.2141,0.4642,0.6471,0.634,0.6107,0.7046,0.5376,0.5934,0.8443,0.9481,0.9705,0.7766,0.6313,0.576,0.6148,0.545,0.4813,0.3406,0.1916,0.1134,0.064,0.0911,0.098,0.0563,0.0187,0.0088,0.0042,0.0175,0.0171,0.0079,0.005,0.0112,0.0179,0.0294,0.0063,Rock
0.0265,0.044,0.0137,0.0084,0.0305,0.0438,0.0341,0.078,0.0844,0.0779,0.0327,0.206,0.1908,0.1065,0.1457,0.2232,0.207,0.1105,0.1078,0.1165,0.2224,0.0689,0.206,0.2384,0.0904,0.2278,0.5872,0.8457,0.8467,0.7679,0.8055,0.626,0.6545,0.8747,0.9885,0.9348,0.696,0.5733,0.5872,0.6663,0.5651,0.5247,0.3684,0.1997,0.1512,0.0508,0.0931,0.0982,0.0524,0.0188,0.01,0.0038,0.0187,0.0156,0.0068,0.0097,0.0073,0.0081,0.0086,0.0095,Rock
0.0368,0.0403,0.0317,0.0293,0.082,0.1342,0.1161,0.0663,0.0155,0.0506,0.0906,0.2545,0.1464,0.1272,0.1223,0.1669,0.1424,0.1285,0.1857,0.1136,0.2069,0.0219,0.24,0.2547,0.024,0.1923,0.4753,0.7003,0.6825,0.6443,0.7063,0.5373,0.6601,0.8708,0.9518,0.9605,0.7712,0.6772,0.6431,0.672,0.6035,0.5155,0.3802,0.2278,0.1522,0.0801,0.0804,0.0752,0.0566,0.0175,0.0058,0.0091,0.016,0.016,0.0081,0.007,0.0135,0.0067,0.0078,0.0068,Rock
0.0195,0.0142,0.0181,0.0406,0.0391,0.0249,0.0892,0.0973,0.084,0.1191,0.1522,0.1322,0.1434,0.1244,0.0653,0.089,0.1226,0.1846,0.388,0.3658,0.2297,0.261,0.4193,0.5848,0.5643,0.5448,0.4772,0.6897,0.9797,1,0.9546,0.8835,0.7662,0.6547,0.5447,0.4593,0.4679,0.1987,0.0699,0.1493,0.1713,0.1654,0.26,0.3846,0.3754,0.2414,0.1077,0.0224,0.0155,0.0187,0.0125,0.0028,0.0067,0.012,0.0012,0.0022,0.0058,0.0042,0.0067,0.0012,Rock
0.0216,0.0215,0.0273,0.0139,0.0357,0.0785,0.0906,0.0908,0.1151,0.0973,0.1203,0.1102,0.1192,0.1762,0.239,0.2138,0.1929,0.1765,0.0746,0.1265,0.2005,0.1571,0.2605,0.5386,0.844,1,0.8684,0.6742,0.5537,0.4638,0.3609,0.2055,0.162,0.2092,0.31,0.2344,0.1058,0.0383,0.0528,0.1291,0.2241,0.1915,0.1587,0.0942,0.084,0.067,0.0342,0.0469,0.0357,0.0136,0.0082,0.014,0.0044,0.0052,0.0073,0.0021,0.0047,0.0024,0.0009,0.0017,Rock
0.0065,0.0122,0.0068,0.0108,0.0217,0.0284,0.0527,0.0575,0.1054,0.1109,0.0937,0.0827,0.092,0.0911,0.1487,0.1666,0.1268,0.1374,0.1095,0.1286,0.2146,0.2889,0.4238,0.6168,0.8167,0.9622,0.828,0.5816,0.4667,0.3539,0.2727,0.141,0.1863,0.2176,0.236,0.1725,0.0589,0.0621,0.1847,0.2452,0.2984,0.3041,0.2275,0.148,0.1102,0.1178,0.0608,0.0333,0.0276,0.01,0.0023,0.0069,0.0025,0.0027,0.0052,0.0036,0.0026,0.0036,0.0006,0.0035,Rock
0.0036,0.0078,0.0092,0.0387,0.053,0.1197,0.1243,0.1026,0.1239,0.0888,0.0937,0.1245,0.1599,0.1542,0.1846,0.1732,0.1477,0.1748,0.1455,0.1579,0.2257,0.1975,0.3368,0.5828,0.8505,1,0.8457,0.6624,0.5564,0.3925,0.3233,0.2054,0.192,0.2227,0.3147,0.2268,0.0795,0.0748,0.1166,0.1969,0.2619,0.2507,0.1983,0.0948,0.0931,0.0965,0.0381,0.0435,0.0336,0.0055,0.0079,0.0119,0.0055,0.0035,0.0036,0.0004,0.0018,0.0049,0.0024,0.0016,Rock
0.0208,0.0186,0.0131,0.0211,0.061,0.0613,0.0612,0.0506,0.0989,0.1093,0.1063,0.1179,0.1291,0.1591,0.168,0.1918,0.1615,0.1647,0.1397,0.1426,0.2429,0.2816,0.429,0.6443,0.9061,1,0.8087,0.6119,0.526,0.3677,0.2746,0.102,0.1339,0.1582,0.1952,0.1787,0.0429,0.1096,0.1762,0.2481,0.315,0.292,0.1902,0.0696,0.0758,0.091,0.0441,0.0244,0.0265,0.0095,0.014,0.0074,0.0063,0.0081,0.0087,0.0044,0.0028,0.0019,0.0049,0.0023,Rock
0.0139,0.0222,0.0089,0.0108,0.0215,0.0136,0.0659,0.0954,0.0786,0.1015,0.1261,0.0828,0.0493,0.0848,0.1514,0.1396,0.1066,0.1923,0.2991,0.3247,0.3797,0.5658,0.7483,0.8757,0.9048,0.7511,0.6858,0.7043,0.5864,0.3773,0.2206,0.2628,0.2672,0.2907,0.1982,0.2288,0.3186,0.2871,0.2921,0.2806,0.2682,0.2112,0.1513,0.1789,0.185,0.1717,0.0898,0.0656,0.0445,0.011,0.0024,0.0062,0.0072,0.0113,0.0012,0.0022,0.0025,0.0059,0.0039,0.0048,Rock
0.0109,0.0093,0.0121,0.0378,0.0679,0.0863,0.1004,0.0664,0.0941,0.1036,0.0972,0.0501,0.1546,0.3404,0.4804,0.657,0.7738,0.7827,0.8152,0.8129,0.8297,0.8535,0.887,0.8894,0.898,0.9667,1,0.9134,0.6762,0.4659,0.2895,0.2959,0.1746,0.2112,0.2569,0.2276,0.2149,0.1601,0.0371

,0.0117,0.0488,0.0288,0.0597,0.0431,0.0369,0.0025,0.0327,0.0257,0.0182,0.0108,0.0124,0.0077,0.0023,0.0117,0.0053,0.0077,0.0076,0.0056,0.0055,0.0039,Rock
0.0202,0.0104,0.0325,0.0239,0.0807,0.1529,0.1154,0.0608,0.1317,0.137,0.0843,0.0269,0.1254,0.3046,0.5584,0.7973,0.8341,0.8057,0.8616,0.8769,0.9413,0.9403,0.9409,1,0.9725,0.9309,0.9351,0.7317,0.4421,0.3244,0.4161,0.4611,0.4031,0.3,0.2459,0.1348,0.2541,0.2255,0.1598,0.1485,0.0845,0.0569,0.0855,0.1262,0.1153,0.057,0.0426,0.0425,0.0235,0.0006,0.0188,0.0127,0.0081,0.0067,0.0043,0.0065,0.0049,0.0054,0.0073,0.0054,Rock
0.0239,0.0189,0.0466,0.044,0.0657,0.0742,0.138,0.1099,0.1384,0.1376,0.0938,0.0259,0.1499,0.2851,0.5743,0.8278,0.8669,0.8131,0.9045,0.9046,1,0.9976,0.9872,0.9761,0.9009,0.9724,0.9675,0.7633,0.4434,0.3822,0.4727,0.4007,0.3381,0.3172,0.2222,0.0733,0.2692,0.1888,0.0712,0.1062,0.0694,0.03,0.0893,0.1459,0.1348,0.0391,0.0546,0.0469,0.0201,0.0095,0.0155,0.0091,0.0151,0.008,0.0018,0.0078,0.0045,0.0026,0.0036,0.0024,Rock
0.0336,0.0294,0.0476,0.0539,0.0794,0.0804,0.1136,0.1228,0.1235,0.0842,0.0357,0.0689,0.1705,0.3257,0.4602,0.6225,0.7327,0.7843,0.7988,0.8261,1,0.9814,0.962,0.9601,0.9118,0.9086,0.7931,0.5877,0.3474,0.4235,0.4633,0.341,0.2849,0.2847,0.1742,0.0549,0.1192,0.1154,0.0855,0.1811,0.1264,0.0799,0.0378,0.1268,0.1125,0.0505,0.0949,0.0677,0.0259,0.017,0.0033,0.015,0.0111,0.0032,0.0035,0.0169,0.0137,0.0015,0.0069,0.0051,Rock
0.0108,0.0086,0.0058,0.046,0.0752,0.0887,0.1015,0.0494,0.0472,0.0393,0.1106,0.1412,0.2202,0.2976,0.4116,0.4754,0.539,0.6279,0.706,0.7918,0.9493,1,0.9645,0.9432,0.8658,0.7895,0.6501,0.4492,0.4739,0.6153,0.4929,0.3195,0.3735,0.3336,0.1052,0.0671,0.0379,0.0461,0.1694,0.2169,0.1677,0.0644,0.0159,0.0778,0.0653,0.021,0.0509,0.0387,0.0262,0.0101,0.0161,0.0029,0.0078,0.0114,0.0083,0.0058,0.0003,0.0023,0.0026,0.0027,Rock
0.0229,0.0369,0.004,0.0375,0.0455,0.1452,0.2211,0.1188,0.075,0.1631,0.2709,0.3358,0.4091,0.44,0.5485,0.7213,0.8137,0.9185,1,0.9418,0.9116,0.9349,0.7484,0.5146,0.4106,0.3443,0.6981,0.8713,0.9013,0.8014,0.438,0.1319,0.1709,0.2484,0.3044,0.2312,0.1338,0.2056,0.2474,0.279,0.161,0.0056,0.0351,0.1148,0.1331,0.0276,0.0763,0.0631,0.0309,0.024,0.0115,0.0064,0.0022,0.0122,0.0151,0.0056,0.0026,0.0029,0.0104,0.0163,Rock
0.01,0.0194,0.0155,0.0489,0.0839,0.1009,0.1627,0.2071,0.2696,0.299,0.3242,0.3565,0.3951,0.5201,0.6953,0.8468,1,0.9278,0.851,0.801,0.8142,0.8825,0.7302,0.6107,0.7159,0.8458,0.6319,0.4808,0.6291,0.7152,0.6005,0.4235,0.4106,0.3992,0.173,0.1975,0.237,0.1339,0.1583,0.3151,0.1968,0.2054,0.1272,0.1129,0.1946,0.2195,0.193,0.1498,0.0773,0.0196,0.0122,0.013,0.0073,0.0077,0.0075,0.006,0.008,0.0019,0.0053,0.0019,Rock
0.0409,0.0421,0.0573,0.013,0.0183,0.1019,0.1054,0.107,0.2302,0.2259,0.2373,0.3323,0.3827,0.484,0.6812,0.7555,0.9522,0.9826,0.8871,0.8268,0.7561,0.8217,0.6967,0.6444,0.6948,0.8014,0.6053,0.6084,0.8877,0.8557,0.5563,0.2897,0.3638,0.4786,0.2908,0.0899,0.2043,0.1707,0.0407,0.1286,0.1581,0.2191,0.1701,0.0971,0.2217,0.2732,0.1874,0.1062,0.0665,0.0405,0.0113,0.0028,0.0036,0.0105,0.012,0.0087,0.0061,0.0061,0.003,0.0078,Rock
0.0217,0.034,0.0392,0.0236,0.1081,0.1164,0.1398,0.1009,0.1147,0.1777,0.4079,0.4113,0.3973,0.5078,0.6509,0.8073,0.9819,1,0.9407,0.8452,0.8106,0.846,0.6212,0.5815,0.7745,0.8204,0.5601,0.2989,0.5009,0.6628,0.5753,0.4055,0.3746,0.3481,0.158,0.1422,0.213,0.1866,0.1003,0.2396,0.2241,0.2029,0.071,0.1606,0.1669,0.17,0.1829,0.1403,0.0506,0.0224,0.0095,0.0031,0.0103,0.0078,0.0077,0.0094,0.0031,0.003,0.0013,0.0069,Rock
0.0378,0.0318,0.0423,0.035,0.1787,0.1635,0.0887,0.0817,0.1779,0.2053,0.3135,0.3118,0.3686,0.3885,0.585,0.7868,0.9739,1,0.9843,0.861,0.8443,0.9061,0.5847,0.4033,0.5946,0.6793,0.6389,0.5002,0.5578,0.4831,0.4729,0.3318,0.3969,0.3894,0.2314,0.1036,0.1312,0.0864,0.2569,0.3179,0.2649,0.2714,0.1713,0.0584,0.123,0.22,0.2198,0.1074,0.0423,0.0162,0.0093,0.0046,0.0044,0.0078,0.0102,0.0065,0.0061,0.0062,0.0043,0.0053,Rock
0.0365,0.1632,0.1636,0.1421,0.113,0.1306,0.2112,0.2268,0.2992,0.3735,0.3042,0.0387,0.2679,0.5397,0.6204,0.7257,0.835,0.6888,0.445,0.3921,0.5605,0.7545,0.8311,1,0.8762,0.7092,0.7009,0.5014,0.3942,0.4456,0.4072,0.0773,0.1423,0.0401,0.3597,0.6847,0.7076,0.3597,0.0612,0.3027,0.3966,0.3868,0.238,0.2059,0.2288,0.1704,0.1587,0.1792,0.1022,0.0151,0.0223,0.011,0.0071,0.0205,0.0164,0.0063,0.0078,0.0094,0.011,0.0068,Rock
0.0188,0.037,0.0953,0.0824,0.0249,0.0488,0.1424,0.1972,0.1873,0.1806,0.2139,0.1523,0.1975,0.4844,0.7298,0.7807,0.7906,0.6122,0.42,0.2807,0.5148,0.7569,0.8596,1,0.8457,0.6797,0.6971,0.5843,0.4772,0.5201,0.4241,0.1592,0.1668,0.0588,0.3967,0.7147,0.7319,0.3509,0.0589,0.269,0.42,0.3874,0.244,0.2,0.2307,0.1886,0.196,0.1701,0.1366,0.0398,0.0143,0.0093,0.0033,0.0113,0.003,0.0057,0.009,0.0057,0.0068,0.0024,Rock
0.0856,0.0454,0.0382,0.0203,0.0385,0.0534,0.214,0.311,0.2837,0.2751,0.2707,0.0946,0.102,0.4519,0.6737,0.6699,0.7066,0.5632,0.3785,0.2721,0.5297,0.7697,0.8643,0.9304,0.9372,0.6247,0.6024,0.681,0.5047,0.5775,0.4754,0.24,0.2779,0.1997,0.5305,0.7409,0.7775,0.4424,0.1416,0.3508,0.4482,0.4208,0.3054,0.2235,0.2611,0.2798,0.2392,0.2021,0.1326,0.0358,0.0128,0.0172,0.0138,0.0079,0.0037,0.0051,0.0258,0.0102,0.0037,0.0037,Rock
0.0274,0.0242,0.0621,0.056,0.1129,0.0973,0.1823,0.1745,0.144,0.1808,0.2366,0.0906,0.1749,0.4012,0.5187,0.7312,0.9062,0.926,0.7434,0.4463,0.5103,0.6952,0.7755,0.8364,0.7283,0.6399,0.5759,0.4146,0.3495,0.4437,0.2665,0.2024,0.1942,0.0765,0.3725,0.5843,0.4827,0.2347,0.0999,0.3244,0.399,0.2975,0.1684,0.1761,0.1683,0.0729,0.119,0.1297,0.0748,0.0067,0.0255,0.0113,0.0108,0.0085,0.0047,0.0074,0.0104,0.0161,0.022,0.0173,Rock
0.0235,0.0291,0.0749,0.0519,0.0227,0.0834,0.0677,0.2002,0.2876,0.3674,0.2974,0.0837,0.1912,0.504,0.6352,0.6804,0.7505,0.6595,0.4509,0.2964,0.4019,0.6794,0.8297,1,0.824,0.7115,0.7726,0.6124,0.4936,0.5648,0.4906,0.182,0.1811,0.1107,0.4603,0.665,0.6423,0.2166,0.1951,0.4947,0.4925,0.4041,0.2402,0.1392,0.1779,0.1946,0.1723,0.1522,0.0929,0.0179,0.0242,0.0083,0.0037,0.0095,0.0105,0.003,0.0132,0.0068,0.0108,0.009,Rock
0.0126,0.0519,0.0621,0.0518,0.1072,0.2587,0.2304,0.2067,0.3416,0.4284,0.3015,0.1207,0.3299,0.5707,0.6962,0.9751,1,0.9293,0.621,0.4586,0.5001,0.5032,0.7082,0.842,0.8109,0.769,0.8105,0.6203,0.2356,0.2595,0.6299,0.6762,0.2903,0.4393,0.8529,0.718,0.4801,0.5856,0.4993,0.2866,0.0601,0.1167,0.2737,0.2812,0.2078,0.066,0.0491,0.0345,0.0172,0.0287,0.0027,0.0208,0.0048,0.0199,0.0126,0.0022,0.0037,0.0034,0.0114,0.0077,Rock
0.0253,0.0808,0.0507,0.0244,0.1724,0.3823,0.3729,0.3583,0.3429,0.2197,0.2653,0.3223,0.5582,0.6916,0.7943,0.7152,0.3512,0.2008,0.2676,0.4299,0.528,0.3489,0.143,0.5453,0.6338,0.7

712,0.6838,0.8015,0.8073,0.831,0.7792,0.5049,0.1413,0.2767,0.5084,0.4787,0.1356,0.2299,0.2789,0.3833,0.2933,0.1155,0.1705,0.1294,0.0909,0.08,0.0567,0.0198,0.0114,0.0151,0.0085,0.0178,0.0073,0.0079,0.0038,0.0116,0.0033,0.0039,0.0081,0.0053,Rock
0.0025,0.0309,0.0171,0.0228,0.0434,0.1224,0.1947,0.1661,0.1368,0.143,0.0994,0.225,0.2444,0.3239,0.3039,0.241,0.0367,0.1672,0.3038,0.4069,0.3613,0.1994,0.4611,0.6849,0.7272,0.7152,0.7102,0.8516,1,0.769,0.4841,0.3717,0.6096,0.511,0.2586,0.0916,0.0947,0.2287,0.348,0.2095,0.1901,0.2941,0.2211,0.1524,0.0746,0.0606,0.0692,0.0446,0.0344,0.0082,0.0108,0.0149,0.0077,0.0036,0.0114,0.0085,0.0101,0.0016,0.0028,0.0014,Rock
0.0291,0.04,0.0771,0.0809,0.0521,0.1051,0.0145,0.0674,0.1294,0.1146,0.0942,0.0794,0.0252,0.1191,0.1045,0.205,0.1556,0.269,0.3784,0.4024,0.347,0.1395,0.1208,0.2827,0.15,0.2626,0.4468,0.752,0.9036,0.7812,0.4766,0.2483,0.5372,0.6279,0.3647,0.4572,0.6359,0.6474,0.552,0.3253,0.2292,0.0653,0,0,0,0,0,0,0,0,0.0056,0.0237,0.0204,0.005,0.0137,0.0164,0.0081,0.0139,0.0111,Rock
0.1313,0.2339,0.3059,0.4264,0.401,0.1791,0.1853,0.0055,0.1929,0.2231,0.2907,0.2259,0.3136,0.3302,0.366,0.3956,0.4386,0.467,0.5255,0.3735,0.2243,0.1973,0.4337,0.6532,0.507,0.2796,0.4163,0.595,0.5242,0.4178,0.3714,0.2375,0.0863,0.1437,0.2896,0.4577,0.3725,0.3372,0.3803,0.4181,0.3603,0.2711,0.1653,0.1951,0.2811,0.2246,0.1921,0.15,0.0665,0.0193,0.0156,0.0362,0.021,0.0154,0.018,0.0013,0.0106,0.0127,0.0178,0.0231,Mine
0.0201,0.0423,0.0554,0.0783,0.062,0.0871,0.1201,0.2707,0.1206,0.0279,0.2251,0.2615,0.177,0.3709,0.4533,0.5553,0.4616,0.3797,0.345,0.2665,0.2395,0.1127,0.2556,0.5169,0.3779,0.4082,0.5353,0.5116,0.4544,0.4258,0.3869,0.3939,0.4661,0.3974,0.2194,0.1816,0.1023,0.2108,0.3253,0.3697,0.2912,0.301,0.2563,0.1927,0.2062,0.1751,0.0841,0.1035,0.0641,0.0153,0.0081,0.0191,0.0182,0.016,0.029,0.009,0.0242,0.0224,0.019,0.0096,Mine
0.0629,0.1065,0.1526,0.1229,0.1437,0.119,0.0884,0.0907,0.2107,0.3597,0.5466,0.5205,0.5127,0.5395,0.6558,0.8705,0.9786,0.9335,0.7917,0.7383,0.6908,0.385,0.0671,0.0502,0.2717,0.2839,0.2234,0.1911,0.0408,0.2531,0.1979,0.1891,0.2433,0.1956,0.2667,0.134,0.1073,0.2023,0.1794,0.0227,0.1313,0.1775,0.1549,0.1626,0.0708,0.0129,0.0795,0.0762,0.0117,0.0061,0.0257,0.0089,0.0262,0.0108,0.0138,0.0187,0.023,0.0057,0.0113,0.0131,Mine
0.0335,0.0134,0.0696,0.118,0.0348,0.118,0.1948,0.1607,0.3036,0.4372,0.5533,0.5771,0.7022,0.7067,0.7367,0.7391,0.8622,0.9458,0.8782,0.7913,0.576,0.3061,0.0563,0.0239,0.2554,0.4862,0.5027,0.4402,0.2847,0.1797,0.356,0.3522,0.3321,0.3112,0.3638,0.0754,0.1834,0.182,0.1815,0.1593,0.0576,0.0954,0.1086,0.0812,0.0784,0.0487,0.0439,0.0586,0.037,0.0185,0.0302,0.0244,0.0232,0.0093,0.0159,0.0193,0.0032,0.0377,0.0126,0.0156,Mine
0.0587,0.121,0.1268,0.1498,0.1436,0.0561,0.0832,0.0672,0.1372,0.2352,0.3208,0.4257,0.5201,0.4914,0.595,0.7221,0.9039,0.9111,0.8723,0.7686,0.7326,0.5222,0.3097,0.3172,0.227,0.164,0.1746,0.1835,0.2048,0.1674,0.2767,0.3104,0.3399,0.4441,0.5046,0.2814,0.1681,0.2633,0.3198,0.1933,0.0934,0.0443,0.078,0.0722,0.0405,0.0553,0.1081,0.1139,0.0767,0.0265,0.0215,0.0331,0.0111,0.0088,0.0158,0.0122,0.0038,0.0101,0.0228,0.0124,Mine
0.0162,0.0253,0.0262,0.0386,0.0645,0.0472,0.1056,0.1388,0.0598,0.1334,0.2969,0.4754,0.5677,0.569,0.6421,0.7487,0.8999,1,0.969,0.9032,0.7685,0.6998,0.6644,0.5964,0.3711,0.0921,0.0481,0.0876,0.104,0.1714,0.3264,0.4612,0.3939,0.505,0.4833,0.3511,0.2319,0.4029,0.3676,0.151,0.0745,0.1395,0.1552,0.0377,0.0636,0.0443,0.0264,0.0223,0.0187,0.0077,0.0137,0.0071,0.0082,0.0232,0.0198,0.0074,0.0035,0.01,0.0048,0.0019,Mine
0.0307,0.0523,0.0653,0.0521,0.0611,0.0577,0.0665,0.0664,0.146,0.2792,0.3877,0.4992,0.4981,0.4972,0.5607,0.7339,0.823,0.9173,0.9975,0.9911,0.824,0.6498,0.598,0.4862,0.315,0.1543,0.0989,0.0284,0.1008,0.2636,0.2694,0.293,0.2925,0.3998,0.366,0.3172,0.4609,0.4374,0.182,0.3376,0.6202,0.4448,0.1863,0.142,0.0589,0.0576,0.0672,0.0269,0.0245,0.019,0.0063,0.0321,0.0189,0.0137,0.0277,0.0152,0.0052,0.0121,0.0124,0.0055,Mine
0.0116,0.0179,0.0449,0.1096,0.1913,0.0924,0.0761,0.1092,0.0757,0.1006,0.25,0.3988,0.3809,0.4753,0.6165,0.6464,0.8024,0.9208,0.9832,0.9634,0.8646,0.8325,0.8276,0.8007,0.6102,0.4853,0.4355,0.4307,0.4399,0.3833,0.3032,0.3035,0.3197,0.2292,0.2131,0.2347,0.3201,0.4455,0.3655,0.2715,0.1747,0.1781,0.2199,0.1056,0.0573,0.0307,0.0237,0.047,0.0102,0.0057,0.0031,0.0163,0.0099,0.0084,0.027,0.0277,0.0097,0.0054,0.0148,0.0092,Mine
0.0331,0.0423,0.0474,0.0818,0.0835,0.0756,0.0374,0.0961,0.0548,0.0193,0.0897,0.1734,0.1936,0.2803,0.3313,0.502,0.636,0.7096,0.8333,0.873,0.8073,0.7507,0.7526,0.7298,0.6177,0.4946,0.4531,0.4099,0.454,0.4124,0.3139,0.3194,0.3692,0.3776,0.4469,0.4777,0.4716,0.4664,0.3893,0.4255,0.4064,0.3712,0.3863,0.2802,0.1283,0.1117,0.1303,0.0787,0.0436,0.0224,0.0133,0.0078,0.0174,0.0176,0.0038,0.0129,0.0066,0.0044,0.0134,0.0092,Mine
0.0428,0.0555,0.0708,0.0618,0.1215,0.1524,0.1543,0.0391,0.061,0.0113,0.1255,0.2473,0.3011,0.3747,0.452,0.5392,0.6588,0.7113,0.7602,0.8672,0.8416,0.7974,0.8385,0.9317,0.8555,0.6162,0.4139,0.3269,0.3108,0.2554,0.3367,0.4465,0.5,0.5111,0.5194,0.4619,0.4234,0.4372,0.4277,0.4433,0.37,0.3324,0.2564,0.2527,0.2137,0.1789,0.101,0.0528,0.0453,0.0118,0.0009,0.0142,0.0179,0.0079,0.006,0.0131,0.0089,0.0084,0.0113,0.0049,Mine
0.0599,0.0474,0.0498,0.0387,0.1026,0.0773,0.0853,0.0447,0.1094,0.0351,0.1582,0.2023,0.2268,0.2829,0.3819,0.4665,0.6687,0.8647,0.9361,0.9367,0.9144,0.9162,0.9311,0.8604,0.7327,0.5763,0.4162,0.4113,0.4146,0.3149,0.2936,0.3169,0.3149,0.4132,0.3994,0.4195,0.4532,0.4419,0.4737,0.3431,0.3194,0.337,0.2493,0.265,0.1748,0.0932,0.053,0.0081,0.0342,0.0137,0.0028,0.0013,0.0005,0.0227,0.0209,0.0081,0.0117,0.0114,0.0112,0.01,Mine
0.0264,0.0071,0.0342,0.0793,0.1043,0.0783,0.1417,0.1176,0.0453,0.0945,0.1132,0.084,0.0717,0.1968,0.2633,0.4191,0.505,0.6711,0.7922,0.8381,0.8759,0.9422,1,0.9931,0.9575,0.8647,0.7215,0.5801,0.4964,0.4886,0.4079,0.2443,0.1768,0.2472,0.3518,0.3762,0.2909,0.2311,0.3168,0.3554,0.3741,0.4443,0.3261,0.1963,0.0864,0.1688,0.1991,0.1217,0.0628,0.0323,0.0253,0.0214,0.0262,0.0177,0.0037,0.0068,0.0121,0.0077,0.0078,0.0066,Mine
0.021,0.0121,0.0203,0.1036,0.1675,0.0418,0.0723,0.0828,0.0494,0.0686,0.1125,0.1741,0.271,0.3087,0.3575,0.4998,0.6011,0.647,0.8067,0.9008,0.8906,0.9338,1,0.9102,0.8496,0.7867,0.7688,0.7718,0.6268,0.4301,0.2077,0.1198,0.166,0.2618,0.3862,0.3958,0.3248,0.2302,0.325,0.4022,0.4344,0.4008,0.337,0.2518,0.2101,0.1181,0.115,0.055,0.0293,0.0183,0.0104,0.0117,0.0101,0.0061,0.0031,0.0099,0.008,0.0107,0.0161,0.0133,Mine

0.053,0.0885,0.1997,0.2604,0.3225,0.2247,0.0617,0.2287,0.095,0.074,0.161,0.2226,0.2703,0.3365,0.4266,0.4144,0.5655,0.6921,0.8547,0.9234,0.9171,1,0.9532,0.9101,0.8337,0.7053,0.6534,0.4483,0.246,0.202,0.1446,0.0994,0.151,0.2392,0.4434,0.5023,0.4441,0.4571,0.3927,0.29,0.3408,0.499,0.3632,0.1387,0.18,0.1299,0.0523,0.0817,0.0469,0.0114,0.0299,0.0244,0.0199,0.0257,0.0082,0.0151,0.0171,0.0146,0.0134,0.0056,Mine
0.0454,0.0472,0.0697,0.1021,0.1397,0.1493,0.1487,0.0771,0.1171,0.1675,0.2799,0.3323,0.4012,0.4296,0.535,0.5411,0.687,0.8045,0.9194,0.9169,1,0.9972,0.9093,0.7918,0.6705,0.5324,0.3572,0.2484,0.3161,0.3775,0.3138,0.1713,0.2937,0.5234,0.5926,0.5437,0.4516,0.3379,0.3215,0.2178,0.1674,0.2634,0.298,0.2037,0.1155,0.0919,0.0882,0.0228,0.038,0.0142,0.0137,0.012,0.0042,0.0238,0.0129,0.0084,0.0218,0.0321,0.0154,0.0053,Mine
0.0283,0.0599,0.0656,0.0229,0.0839,0.1673,0.1154,0.1098,0.137,0.1767,0.1995,0.2869,0.3275,0.3769,0.4169,0.5036,0.618,0.8025,0.9333,0.9399,0.9275,0.945,0.8328,0.7773,0.7007,0.6154,0.581,0.4454,0.3707,0.2891,0.2185,0.1711,0.3578,0.3947,0.2867,0.2401,0.3619,0.3314,0.3763,0.4767,0.4059,0.3661,0.232,0.145,0.1017,0.1111,0.0655,0.0271,0.0244,0.0179,0.0109,0.0147,0.017,0.0158,0.0046,0.0073,0.0054,0.0033,0.0045,0.0079,Mine
0.0114,0.0222,0.0269,0.0384,0.1217,0.2062,0.1489,0.0929,0.135,0.1799,0.2486,0.2973,0.3672,0.4394,0.5258,0.6755,0.7402,0.8284,0.9033,0.9584,1,0.9982,0.8899,0.7493,0.6367,0.6744,0.7207,0.6821,0.5512,0.4789,0.3924,0.2533,0.1089,0.139,0.2551,0.3301,0.2818,0.2142,0.2266,0.2142,0.2354,0.2871,0.2596,0.1925,0.1256,0.1003,0.0951,0.121,0.0728,0.0174,0.0213,0.0269,0.0152,0.0257,0.0097,0.0041,0.005,0.0145,0.0103,0.0025,Mine
0.0414,0.0436,0.0447,0.0844,0.0419,0.1215,0.2002,0.1516,0.0818,0.1975,0.2309,0.3025,0.3938,0.505,0.5872,0.661,0.7417,0.8006,0.8456,0.7939,0.8804,0.8384,0.7852,0.8479,0.7434,0.6433,0.5514,0.3519,0.3168,0.3346,0.2056,0.1032,0.3168,0.404,0.4282,0.4538,0.3704,0.3741,0.3839,0.3494,0.438,0.4265,0.2854,0.2808,0.2395,0.0369,0.0805,0.0541,0.0177,0.0065,0.0222,0.0045,0.0136,0.0113,0.0053,0.0165,0.0141,0.0077,0.0246,0.0198,Mine
0.0094,0.0333,0.0306,0.0376,0.1296,0.1795,0.1909,0.1692,0.187,0.1725,0.2228,0.3106,0.4144,0.5157,0.5369,0.5107,0.6441,0.7326,0.8164,0.8856,0.9891,1,0.875,0.8631,0.9074,0.8674,0.775,0.66,0.5615,0.4016,0.2331,0.1164,0.1095,0.0431,0.0619,0.1956,0.212,0.3242,0.4102,0.2939,0.1911,0.1702,0.101,0.1512,0.1427,0.1097,0.1173,0.0972,0.0703,0.0281,0.0216,0.0153,0.0112,0.0241,0.0164,0.0055,0.0078,0.0055,0.0091,0.0067,Mine
0.0228,0.0106,0.013,0.0842,0.1117,0.1506,0.1776,0.0997,0.1428,0.2227,0.2621,0.3109,0.2859,0.3316,0.3755,0.4499,0.4765,0.6254,0.7304,0.8702,0.9349,0.9614,0.9126,0.9443,1,0.9455,0.8815,0.752,0.7068,0.5986,0.3857,0.251,0.2162,0.0968,0.1323,0.1344,0.225,0.3244,0.3939,0.3806,0.3258,0.3654,0.2983,0.1779,0.1535,0.1199,0.0959,0.0765,0.0649,0.0313,0.0185,0.0098,0.0178,0.0077,0.0074,0.0095,0.0055,0.0045,0.0063,0.0039,Mine
0.0363,0.0478,0.0298,0.021,0.1409,0.1916,0.1349,0.1613,0.1703,0.1444,0.1989,0.2154,0.2863,0.357,0.398,0.4359,0.5334,0.6304,0.6995,0.7435,0.8379,0.8641,0.9014,0.9432,0.9536,1,0.9547,0.9745,0.8962,0.7196,0.5462,0.3156,0.2525,0.1969,0.2189,0.1533,0.0711,0.1498,0.1755,0.2276,0.1322,0.1056,0.1973,0.1692,0.1881,0.1177,0.0779,0.0495,0.0492,0.0194,0.025,0.0115,0.019,0.0055,0.0096,0.005,0.0066,0.0114,0.0073,0.0033,Mine
0.0261,0.0266,0.0223,0.0749,0.1364,0.1513,0.1316,0.1654,0.1864,0.2013,0.289,0.365,0.351,0.3495,0.4325,0.5398,0.6237,0.6876,0.7329,0.8107,0.8396,0.8632,0.8747,0.9607,0.9716,0.9121,0.8576,0.8798,0.772,0.5711,0.4264,0.286,0.3114,0.2066,0.1165,0.0185,0.1302,0.248,0.1637,0.1103,0.2144,0.2033,0.1887,0.137,0.1376,0.0307,0.0373,0.0606,0.0399,0.0169,0.0135,0.0222,0.0175,0.0127,0.0022,0.0124,0.0054,0.0021,0.0028,0.0023,Mine
0.0346,0.0509,0.0079,0.0243,0.0432,0.0735,0.0938,0.1134,0.1228,0.1508,0.1809,0.239,0.2947,0.2866,0.401,0.5325,0.5486,0.5823,0.6041,0.6749,0.7084,0.789,0.9284,0.9781,0.9738,1,0.9702,0.9956,0.8235,0.602,0.5342,0.4867,0.3526,0.1566,0.0946,0.1613,0.2824,0.339,0.3019,0.2945,0.2978,0.2676,0.2055,0.2069,0.1625,0.1216,0.1013,0.0744,0.0386,0.005,0.0146,0.004,0.0122,0.0107,0.0112,0.0102,0.0052,0.0024,0.0079,0.0031,Mine
0.0162,0.0041,0.0239,0.0441,0.063,0.0921,0.1368,0.1078,0.1552,0.1779,0.2164,0.2568,0.3089,0.3829,0.4393,0.5335,0.5996,0.6728,0.7309,0.8092,0.8941,0.9668,1,0.9893,0.9376,0.8991,0.9184,0.9128,0.7811,0.6018,0.3765,0.33,0.228,0.0212,0.1117,0.1788,0.2373,0.2843,0.2241,0.2715,0.3363,0.2546,0.1867,0.216,0.1278,0.0768,0.107,0.0946,0.0636,0.0227,0.0128,0.0173,0.0135,0.0114,0.0062,0.0157,0.0088,0.0036,0.0053,0.003,Mine
0.0249,0.0119,0.0277,0.076,0.1218,0.1538,0.1192,0.1229,0.2119,0.2531,0.2855,0.2961,0.3341,0.4287,0.5205,0.6087,0.7236,0.7577,0.7726,0.8098,0.8995,0.9247,0.9365,0.9853,0.9776,1,0.9896,0.9076,0.7306,0.5758,0.4469,0.3719,0.2079,0.0955,0.0488,0.1406,0.2554,0.2054,0.1614,0.2232,0.1773,0.2293,0.2521,0.1464,0.0673,0.0965,0.1492,0.1128,0.0463,0.0193,0.014,0.0027,0.0068,0.015,0.0012,0.0133,0.0048,0.0244,0.0077,0.0074,Mine
0.027,0.0163,0.0341,0.0247,0.0822,0.1256,0.1323,0.1584,0.2017,0.2122,0.221,0.2399,0.2964,0.4061,0.5095,0.5512,0.6613,0.6804,0.652,0.6788,0.7811,0.8369,0.8969,0.9856,1,0.9395,0.8917,0.8105,0.6828,0.5572,0.4301,0.3339,0.2035,0.0798,0.0809,0.1525,0.2626,0.2456,0.198,0.2412,0.2409,0.1901,0.2077,0.1767,0.1119,0.0779,0.1344,0.096,0.0598,0.033,0.0197,0.0189,0.0204,0.0085,0.0043,0.0092,0.0138,0.0094,0.0105,0.0093,Mine
0.0388,0.0324,0.0688,0.0898,0.1267,0.1515,0.2134,0.2613,0.2832,0.2718,0.3645,0.3934,0.3843,0.4677,0.5426,0.4823,0.4835,0.5862,0.7579,0.6997,0.6918,0.8633,0.9107,0.9346,0.7884,0.8585,0.9261,0.708,0.5779,0.5215,0.4505,0.3129,0.1448,0.1046,0.182,0.1519,0.1017,0.1438,0.1986,0.2039,0.2778,0.2879,0.1331,0.114,0.131,0.1433,0.0624,0.01,0.0098,0.0131,0.0152,0.0255,0.0071,0.0263,0.0079,0.0111,0.0107,0.0068,0.0097,0.0067,Mine
0.0228,0.0853,0.1,0.0428,0.1117,0.1651,0.1597,0.2116,0.3295,0.3517,0.333,0.3643,0.402,0.4731,0.5196,0.6573,0.8426,0.8476,0.8344,0.8453,0.7999,0.8537,0.9642,1,0.9357,0.9409,0.907,0.7104,0.632,0.5667,0.3501,0.2447,0.1698,0.329,0.3674,0.2331,0.2413,0.2556,0.1892,0.194,0.3074,0.2785,0.0308,0.1238,0.1854,0.1753,0.1079,0.0728,0.0242,0.0191,0.0159,0.0172,0.0191,0.026,0.014,0.0125,0.0116,0.0093,0.0012,0.0036,Mine
0.0715,0.0849,0.0587,0.0218,0.0862,0.1801,0.1916,0.1896,0.296,0.4186,0.4867,0.5249,0.5959,0.6855,0.8573,0.9718,0.8693,0.8711,0.8954,0.9922,0.898,0.8158,0.8373,0.7541,0.5893,0.5488,0.5643,0.5406,0.4783,0.4439,0.3698,0.2574,0.1478,0.1743,0.1229,0.1588,0.1803,0.1436,

0.1667,0.263,0.2234,0.1239,0.0869,0.2092,0.1499,0.0676,0.0899,0.0927,0.0658,0.0086,0.021
6,0.0153,0.0121,0.0096,0.0196,0.0042,0.0066,0.0099,0.0083,0.0124,Mine
0.0209,0.0261,0.012,0.0768,0.1064,0.168,0.3016,0.346,0.3314,0.4125,0.3943,0.1334,0.4622,
0.997,0.9137,0.8292,0.6994,0.7825,0.8789,0.8501,0.892,0.9473,1,0.8975,0.7806,0.8321,0.65
02,0.4548,0.4732,0.3391,0.2747,0.0978,0.0477,0.1403,0.1834,0.2148,0.1271,0.1912,0.3391,0
.3444,0.2369,0.1195,0.2665,0.2587,0.1393,0.1083,0.1383,0.1321,0.1069,0.0325,0.0316,0.005
7,0.0159,0.0085,0.0372,0.0101,0.0127,0.0288,0.0129,0.0023,Mine
0.0374,0.0586,0.0628,0.0534,0.0255,0.1422,0.2072,0.2734,0.307,0.2597,0.3483,0.3999,0.457
4,0.595,0.7924,0.8272,0.8087,0.8977,0.9828,0.8982,0.889,0.9367,0.9122,0.7936,0.6718,0.63
18,0.4865,0.3388,0.4832,0.3822,0.3075,0.1267,0.0743,0.151,0.1906,0.1817,0.1709,0.0946,0.
2829,0.3006,0.1602,0.1483,0.2875,0.2047,0.1064,0.1395,0.1065,0.0527,0.0395,0.0183,0.0353
,0.0118,0.0063,0.0237,0.0032,0.0087,0.0124,0.0113,0.0098,0.0126,Mine
0.1371,0.1226,0.1385,0.1484,0.1776,0.1428,0.1773,0.2161,0.163,0.2067,0.4257,0.5484,0.713
1,0.7003,0.6777,0.7939,0.9382,0.8925,0.9146,0.7832,0.796,0.7983,0.7716,0.6615,0.486,0.55
72,0.4697,0.564,0.4517,0.3369,0.2684,0.2339,0.3052,0.3016,0.2753,0.1041,0.1757,0.3156,0.
3603,0.2736,0.1301,0.2458,0.3404,0.1753,0.0679,0.1062,0.0643,0.0532,0.0531,0.0272,0.0171
,0.0118,0.0129,0.0344,0.0065,0.0067,0.0022,0.0079,0.0146,0.0051,Mine
0.0443,0.0446,0.0235,0.1008,0.2252,0.2611,0.2061,0.1668,0.1801,0.3083,0.3794,0.5364,0.61
73,0.7842,0.8392,0.9016,1,0.8911,0.8753,0.7886,0.7156,0.7581,0.6372,0.321,0.2076,0.2279,
0.3309,0.2847,0.1949,0.1671,0.1025,0.1362,0.2212,0.1124,0.1677,0.1039,0.2562,0.2624,0.22
36,0.118,0.1103,0.2831,0.2385,0.0255,0.1967,0.1483,0.0434,0.0627,0.0513,0.0473,0.0248,0.
0274,0.0205,0.0141,0.0185,0.0055,0.0045,0.0115,0.0152,0.01,Mine
0.115,0.1163,0.0866,0.0358,0.0232,0.1267,0.2417,0.2661,0.4346,0.5378,0.3816,0.0991,0.061
6,0.1795,0.3907,0.3602,0.3041,0.2428,0.406,0.8395,0.9777,0.468,0.061,0.2143,0.1348,0.285
4,0.1617,0.2649,0.4565,0.6502,0.2848,0.3296,0.537,0.6627,0.8626,0.8547,0.7848,0.9016,0.8
827,0.6086,0.281,0.0906,0.1177,0.2694,0.5214,0.4232,0.234,0.1928,0.1092,0.0507,0.0228,0.
0099,0.0065,0.0085,0.0166,0.011,0.019,0.0141,0.0068,0.0086,Mine
0.0968,0.0821,0.0629,0.0608,0.0617,0.1207,0.0944,0.4223,0.5744,0.5025,0.3488,0.17,0.2076
,0.3087,0.4224,0.5312,0.2436,0.1884,0.1908,0.8321,1,0.4076,0.096,0.1928,0.2419,0.379,0.2
893,0.3451,0.3777,0.5213,0.2316,0.3335,0.4781,0.6116,0.6705,0.7375,0.7356,0.7792,0.6788,
0.5259,0.2762,0.1545,0.2019,0.2231,0.4221,0.3067,0.1329,0.1349,0.1057,0.0499,0.0206,0.00
73,0.0081,0.0303,0.019,0.0212,0.0126,0.0201,0.021,0.0041,Mine
0.079,0.0707,0.0352,0.166,0.133,0.0226,0.0771,0.2678,0.5664,0.6609,0.5002,0.2583,0.165,0
.4347,0.4515,0.4579,0.3366,0.4,0.5325,0.901,0.9939,0.3689,0.1012,0.0248,0.2318,0.3981,0.
2259,0.5247,0.6898,0.8316,0.4326,0.3741,0.5756,0.8043,0.7963,0.7174,0.7056,0.8148,0.7601
,0.6034,0.4554,0.4729,0.4478,0.3722,0.4693,0.3839,0.0768,0.1467,0.0777,0.0469,0.0193,0.0
298,0.039,0.0294,0.0175,0.0249,0.0141,0.0073,0.0025,0.0101,Mine
0.1083,0.107,0.0257,0.0837,0.0748,0.1125,0.3322,0.459,0.5526,0.5966,0.5304,0.2251,0.2402
,0.2689,0.6646,0.6632,0.1674,0.0837,0.4331,0.8718,0.7992,0.3712,0.1703,0.1611,0.2086,0.2
847,0.2211,0.6134,0.5807,0.6925,0.3825,0.4303,0.7791,0.8703,1,0.9212,0.9386,0.9303,0.731
4,0.4791,0.2087,0.2016,0.1669,0.2872,0.4374,0.3097,0.1578,0.0553,0.0334,0.0209,0.0172,0.
018,0.011,0.0234,0.0276,0.0032,0.0084,0.0122,0.0082,0.0143,Mine
0.0094,0.0611,0.1136,0.1203,0.0403,0.1227,0.2495,0.4566,0.6587,0.5079,0.335,0.0834,0.300
4,0.3957,0.3769,0.3828,0.1247,0.1363,0.2678,0.9188,0.9779,0.3236,0.1944,0.1874,0.0885,0.
3443,0.2953,0.5908,0.4564,0.7334,0.1969,0.279,0.6212,0.8681,0.8621,0.938,0.8327,0.948,0.
6721,0.4436,0.5163,0.3809,0.1557,0.1449,0.2662,0.1806,0.1699,0.2559,0.1129,0.0201,0.048,
0.0234,0.0175,0.0352,0.0158,0.0326,0.0201,0.0168,0.0245,0.0154,Mine
0.1088,0.1278,0.0926,0.1234,0.1276,0.1731,0.1948,0.4262,0.6828,0.5761,0.4733,0.2362,0.10
23,0.2904,0.4713,0.4659,0.1415,0.0849,0.3257,0.9007,0.9312,0.4856,0.1346,0.1604,0.2737,0
.5609,0.3654,0.6139,0.547,0.8474,0.5638,0.5443,0.5086,0.6253,0.8497,0.8406,0.842,0.9136,
0.7713,0.4882,0.3724,0.4469,0.4586,0.4491,0.5616,0.4305,0.0945,0.0794,0.0274,0.0154,0.01
4,0.0455,0.0213,0.0082,0.0124,0.0167,0.0103,0.0205,0.0178,0.0187,Mine
0.043,0.0902,0.0833,0.0813,0.0165,0.0277,0.0569,0.2057,0.3887,0.7106,0.7342,0.5033,0.3,0
.1951,0.2767,0.3737,0.2507,0.2507,0.3292,0.4871,0.6527,0.8454,0.9739,1,0.6665,0.5323,0.4
024,0.3444,0.4239,0.4182,0.4393,0.1162,0.4336,0.6553,0.6172,0.4373,0.4118,0.3641,0.4572,
0.4367,0.2964,0.4312,0.4155,0.1824,0.1487,0.0138,0.1164,0.2052,0.1069,0.0199,0.0208,0.01
76,0.0197,0.021,0.0141,0.0049,0.0027,0.0162,0.0059,0.0021,Mine
0.0731,0.1249,0.1665,0.1496,0.1443,0.277,0.2555,0.1712,0.0466,0.1114,0.1739,0.316,0.3249
,0.2164,0.2031,0.258,0.1796,0.2422,0.3609,0.181,0.2604,0.6572,0.9734,0.9757,0.8079,0.652
1,0.4915,0.5363,0.7649,0.525,0.5101,0.4219,0.416,0.1906,0.0223,0.4219,0.5496,0.2483,0.20
34,0.2729,0.2837,0.4463,0.3178,0.0807,0.1192,0.2134,0.3241,0.2945,0.1474,0.0211,0.0361,0
.0444,0.023,0.029,0.0141,0.0161,0.0177,0.0194,0.0207,0.0057,Mine
0.0164,0.0627,0.0738,0.0608,0.0233,0.1048,0.1338,0.0644,0.1522,0.078,0.1791,0.2681,0.178
8,0.1039,0.198,0.3234,0.3748,0.2586,0.368,0.3508,0.5606,0.5231,0.5469,0.6954,0.6352,0.67
57,0.8499,0.8025,0.6563,0.8591,0.6655,0.5369,0.3118,0.3763,0.2801,0.0875,0.3319,0.4237,0
.1801,0.3743,0.4627,0.1614,0.2494,0.3202,0.2265,0.1146,0.0476,0.0943,0.0824,0.0171,0.024
4,0.0258,0.0143,0.0226,0.0187,0.0185,0.011,0.0094,0.0078,0.0112,Mine
0.0412,0.1135,0.0518,0.0232,0.0646,0.1124,0.1787,0.2407,0.2682,0.2058,0.1546,0.2671,0.31
41,0.2904,0.3531,0.5079,0.4639,0.1859,0.4474,0.4079,0.54,0.4786,0.4332,0.6113,0.5091,0.4
606,0.7243,0.8987,0.8826,0.9201,0.8005,0.6033,0.212,0.2866,0.4033,0.2803,0.3087,0.355,0.
2545,0.1432,0.5869,0.6431,0.5826,0.4286,0.4894,0.5777,0.4315,0.264,0.1794,0.0772,0.0798,
0.0376,0.0143,0.0272,0.0127,0.0166,0.0095,0.0225,0.0098,0.0085,Mine
0.0707,0.1252,0.1447,0.1644,0.1693,0.0844,0.0715,0.0947,0.1583,0.1247,0.234,0.1764,0.228
4,0.3115,0.4725,0.5543,0.5386,0.3746,0.4583,0.5961,0.7464,0.7644,0.5711,0.6257,0.6695,0.
7131,0.7567,0.8077,0.8477,0.9289,0.9513,0.7995,0.4362,0.4048,0.4952,0.1712,0.3652,0.3763
,0.2841,0.0427,0.5331,0.6952,0.4288,0.3063,0.5835,0.5692,0.263,0.1196,0.0983,0.0374,0.02
91,0.0156,0.0197,0.0135,0.0127,0.0138,0.0133,0.0131,0.0154,0.0218,Mine
0.0526,0.0563,0.1219,0.1206,0.0246,0.1022,0.0539,0.0439,0.2291,0.1632,0.2544,0.2807,0.30
11,0.3361,0.3024,0.2285,0.291,0.1316,0.1151,0.3404,0.5562,0.6379,0.6553,0.7384,0.6534,0.

5423,0.6877,0.7325,0.7726,0.8229,0.8787,0.9108,0.6705,0.6092,0.7505,0.4775,0.1666,0.3749,0.3776,0.2106,0.5886,0.5628,0.2577,0.5245,0.6149,0.5123,0.3385,0.1499,0.0546,0.027,0.038,0.0339,0.0149,0.0335,0.0376,0.0174,0.0132,0.0103,0.0364,0.0208,Mine

0.0516,0.0944,0.0622,0.0415,0.0995,0.2431,0.1777,0.2018,0.2611,0.1294,0.2646,0.2778,0.4432,0.3672,0.2035,0.2764,0.3252,0.1536,0.2784,0.3508,0.5187,0.7052,0.7143,0.6814,0.51,0.5308,0.6131,0.8388,0.9031,0.8607,0.9656,0.9168,0.7132,0.6898,0.731,0.4134,0.158,0.1819,0.1381,0.296,0.6935,0.8246,0.5351,0.4403,0.6448,0.6214,0.3016,0.1379,0.0364,0.0355,0.0456,0.0432,0.0274,0.0152,0.012,0.0129,0.002,0.0109,0.0074,0.0078,Mine

0.0299,0.0688,0.0992,0.1021,0.08,0.0629,0.013,0.0813,0.1761,0.0998,0.0523,0.0904,0.2655,0.3099,0.352,0.3892,0.3962,0.2449,0.2355,0.3045,0.3112,0.4698,0.5534,0.4532,0.4464,0.467,0.4621,0.6988,0.7626,0.7025,0.7382,0.7446,0.7927,0.5227,0.3967,0.3042,0.1309,0.2408,0.178,0.1598,0.5657,0.6443,0.4241,0.4567,0.576,0.5293,0.3287,0.1283,0.0698,0.0334,0.0342,0.0459,0.0277,0.0172,0.0087,0.0046,0.0203,0.013,0.0115,0.0015,Mine

0.0721,0.1574,0.1112,0.1085,0.0666,0.18,0.1108,0.2794,0.1408,0.0795,0.2534,0.392,0.3375,0.161,0.1889,0.3308,0.2282,0.2177,0.1853,0.5167,0.5342,0.6298,0.8437,0.6756,0.5825,0.6141,0.8809,0.8375,0.3869,0.5051,0.5455,0.4241,0.1534,0.495,0.6983,0.7109,0.5647,0.487,0.5515,0.4433,0.525,0.6075,0.5251,0.1359,0.4268,0.4442,0.2193,0.09,0.12,0.0628,0.0234,0.0309,0.0127,0.0082,0.0281,0.0117,0.0092,0.0147,0.0157,0.0129,Mine

0.1021,0.083,0.0577,0.0627,0.0635,0.1328,0.0988,0.1787,0.1199,0.1369,0.2509,0.2631,0.2796,0.2977,0.3823,0.3129,0.3956,0.2093,0.3218,0.3345,0.3184,0.2887,0.361,0.2566,0.4106,0.4591,0.4722,0.7278,0.7591,0.6579,0.7514,0.6666,0.4903,0.5962,0.6552,0.4014,0.1188,0.3245,0.3107,0.1354,0.5109,0.7988,0.7517,0.5508,0.5858,0.7292,0.5522,0.3339,0.1608,0.0475,0.1004,0.0709,0.0317,0.0309,0.0252,0.0087,0.0177,0.0214,0.0227,0.0106,Mine

0.0654,0.0649,0.0737,0.1132,0.2482,0.1257,0.1797,0.0989,0.246,0.3422,0.2128,0.1377,0.4032,0.5684,0.2398,0.4331,0.5954,0.5772,0.8176,0.8835,0.5248,0.6373,0.8375,0.6699,0.7756,0.875,0.83,0.6896,0.3372,0.6405,0.7138,0.8202,0.6657,0.5254,0.296,0.0704,0.097,0.3941,0.6028,0.3521,0.3924,0.4808,0.4602,0.4164,0.5438,0.5649,0.3195,0.2484,0.1299,0.0825,0.0243,0.021,0.0361,0.0239,0.0447,0.0394,0.0355,0.044,0.0243,0.0098,Mine

0.0712,0.0901,0.1276,0.1497,0.1284,0.1165,0.1285,0.1684,0.183,0.2127,0.2891,0.3985,0.4576,0.5821,0.5027,0.193,0.2579,0.3177,0.2745,0.6186,0.8958,0.7442,0.5188,0.2811,0.1773,0.6607,0.7576,0.5122,0.4701,0.5479,0.4347,0.1276,0.0846,0.0927,0.0313,0.0998,0.1781,0.1586,0.3001,0.2208,0.1455,0.2895,0.3203,0.1414,0.0629,0.0734,0.0805,0.0608,0.0565,0.0286,0.0154,0.0154,0.0156,0.0054,0.003,0.0048,0.0087,0.0101,0.0095,0.0068,Mine

0.0207,0.0535,0.0334,0.0818,0.074,0.0324,0.0918,0.107,0.1553,0.1234,0.1796,0.1787,0.1247,0.2577,0.337,0.399,0.1647,0.2266,0.3219,0.5356,0.8159,1,0.8701,0.6889,0.6299,0.5738,0.5707,0.5976,0.4301,0.2058,0.1,0.2247,0.2308,0.3977,0.3317,0.1726,0.1429,0.2168,0.1967,0.214,0.3674,0.2023,0.0778,0.0925,0.2388,0.34,0.2594,0.1102,0.0911,0.0462,0.0171,0.0033,0.005,0.019,0.0103,0.0121,0.0042,0.009,0.007,0.0099,Mine

0.0209,0.0278,0.0115,0.0445,0.0427,0.0766,0.1458,0.143,0.1894,0.1853,0.1748,0.1556,0.1476,0.1378,0.2584,0.3827,0.4784,0.536,0.6192,0.7912,0.9264,1,0.908,0.7435,0.5557,0.3172,0.1295,0.0598,0.2722,0.3616,0.3293,0.4855,0.3936,0.1845,0.0342,0.2489,0.3837,0.3514,0.2654,0.176,0.1599,0.0866,0.059,0.0813,0.0492,0.0417,0.0495,0.0367,0.0115,0.0118,0.0133,0.0096,0.0014,0.0049,0.0039,0.0029,0.0078,0.0047,0.0021,0.0011,Mine

0.0231,0.0315,0.017,0.0226,0.041,0.0116,0.0223,0.0805,0.2365,0.2461,0.2245,0.152,0.1732,0.3099,0.438,0.5595,0.682,0.6164,0.6803,0.8435,0.9921,1,0.7983,0.5426,0.3952,0.5179,0.565,0.3042,0.1881,0.396,0.2286,0.3544,0.4187,0.2398,0.1847,0.376,0.4331,0.3626,0.2519,0.187,0.1046,0.2339,0.1991,0.11,0.0684,0.0303,0.0674,0.0785,0.0455,0.0246,0.0151,0.0125,0.0036,0.0123,0.0043,0.0114,0.0052,0.0091,0.0008,0.0092,Mine

0.0131,0.0201,0.0045,0.0217,0.023,0.0481,0.0742,0.0333,0.1369,0.2079,0.2295,0.199,0.1184,0.1891,0.2949,0.5343,0.685,0.7923,0.822,0.729,0.7352,0.7918,0.8057,0.4898,0.1934,0.2924,0.6255,0.8546,0.8966,0.7821,0.5168,0.484,0.4038,0.3411,0.2849,0.2353,0.2699,0.4442,0.4323,0.3314,0.1195,0.1669,0.3702,0.3072,0.0945,0.1545,0.1394,0.0772,0.0615,0.023,0.0111,0.0168,0.0086,0.0045,0.0062,0.0065,0.003,0.0066,0.0029,0.0053,Mine

0.0233,0.0394,0.0416,0.0547,0.0993,0.1515,0.1674,0.1513,0.1723,0.2078,0.1239,0.0236,0.1771,0.3115,0.499,0.6707,0.7655,0.8485,0.9805,1,1,0.9992,0.9067,0.6803,0.5103,0.4716,0.498,0.6196,0.7171,0.6316,0.3554,0.2897,0.4316,0.3791,0.2421,0.0944,0.0351,0.0844,0.0436,0.113,0.2045,0.1937,0.0834,0.1502,0.1675,0.1058,0.1111,0.0849,0.0596,0.0201,0.0071,0.0104,0.0062,0.0026,0.0025,0.0061,0.0038,0.0101,0.0078,0.0006,Mine

0.0117,0.0069,0.0279,0.0583,0.0915,0.1267,0.1577,0.1927,0.2361,0.2169,0.118,0.0754,0.2782,0.3758,0.5093,0.6592,0.7071,0.7532,0.8357,0.8593,0.9615,0.9838,0.8705,0.6403,0.5067,0.5395,0.6934,0.8487,0.8213,0.5962,0.295,0.2758,0.2885,0.1893,0.1446,0.0955,0.0888,0.0836,0.0894,0.1547,0.2318,0.2225,0.1035,0.1721,0.2017,0.1787,0.1112,0.0398,0.0305,0.0084,0.0039,0.0053,0.0029,0.002,0.0013,0.0029,0.002,0.0062,0.0026,0.0052,Mine

0.0211,0.0128,0.0015,0.045,0.0711,0.1563,0.1518,0.1206,0.1666,0.1345,0.0785,0.0367,0.1227,0.2614,0.428,0.6122,0.7435,0.813,0.9006,0.9603,0.9162,0.914,0.7851,0.5134,0.3439,0.329,0.2571,0.3685,0.5765,0.619,0.4613,0.3615,0.4434,0.3864,0.3093,0.2138,0.1112,0.1386,0.1523,0.0996,0.1644,0.1902,0.1313,0.1776,0.2,0.0765,0.0727,0.0749,0.0449,0.0134,0.0174,0.0117,0.0023,0.0047,0.0049,0.0031,0.0024,0.0039,0.0051,0.0015,Mine

0.0047,0.0059,0.008,0.0554,0.0883,0.1278,0.1674,0.1373,0.2922,0.3469,0.3265,0.3263,0.2301,0.1253,0.2102,0.2401,0.1928,0.1673,0.1228,0.0902,0.1557,0.3291,0.5268,0.674,0.7906,0.8938,0.9395,0.9493,0.904,0.9151,0.8828,0.8086,0.718,0.672,0.6447,0.6879,0.6241,0.4936,0.4144,0.424,0.4546,0.4392,0.4323,0.4921,0.471,0.3196,0.2241,0.1806,0.099,0.0251,0.0129,0.0095,0.0126,0.0069,0.0039,0.0068,0.006,0.0045,0.0002,0.0029,Mine

0.0201,0.0178,0.0274,0.0232,0.0724,0.0833,0.1232,0.1298,0.2085,0.272,0.2188,0.3037,0.2959,0.2059,0.0906,0.161,0.18,0.218,0.2026,0.1506,0.0521,0.2143,0.4333,0.5943,0.6926,0.7576,0.8787,0.906,0.8528,0.9087,0.9657,0.9306,0.7774,0.6643,0.6604,0.6884,0.6938,0.5932,0.5774,0.6223,0.5841,0.4527,0.4911,0.5762,0.5013,0.4042,0.3123,0.2232,0.1085,0.0414,0.0253,0.0131,0.0049,0.0104,0.0102,0.0092,0.0083,0.002,0.0048,0.0036,Mine

0.0107,0.0453,0.0289,0.0713,0.1075,0.1019,0.1606,0.2119,0.3061,0.2936,0.3104,0.3431,0.24
56,0.1887,0.1184,0.208,0.2736,0.3274,0.2344,0.126,0.0576,0.1241,0.3239,0.4357,0.5734,0.7
825,0.9252,0.9349,0.9348,1,0.9308,0.8478,0.7605,0.704,0.7539,0.799,0.7673,0.5955,0.4731,
0.484,0.434,0.3954,0.4837,0.5379,0.4485,0.2674,0.1541,0.1359,0.0941,0.0261,0.0079,0.0164
,0.012,0.0113,0.0021,0.0097,0.0072,0.006,0.0017,0.0036,Mine
0.0235,0.022,0.0167,0.0516,0.0746,0.1121,0.1258,0.1717,0.3074,0.3199,0.2946,0.2484,0.251
,0.1806,0.1413,0.3019,0.3635,0.3887,0.298,0.2219,0.1624,0.1343,0.2046,0.3791,0.5771,0.75
45,0.8406,0.8547,0.9036,1,0.9646,0.7912,0.6412,0.5986,0.6835,0.7771,0.8084,0.7426,0.6295
,0.5708,0.4433,0.3361,0.3795,0.495,0.4373,0.2404,0.1128,0.1654,0.0933,0.0225,0.0214,0.02
21,0.0152,0.0083,0.0058,0.0023,0.0057,0.0052,0.0027,0.0021,Mine
0.0258,0.0433,0.0547,0.0681,0.0784,0.125,0.1296,0.1729,0.2794,0.2954,0.2506,0.2601,0.224
9,0.2115,0.127,0.1193,0.1794,0.2185,0.1646,0.074,0.0625,0.2381,0.4824,0.6372,0.7531,0.89
59,0.9941,0.9957,0.9328,0.9344,0.8854,0.769,0.6865,0.639,0.6378,0.6629,0.5983,0.4565,0.3
129,0.4158,0.4325,0.4031,0.4201,0.4557,0.3955,0.2966,0.2095,0.1558,0.0884,0.0265,0.0121,
0.0091,0.0062,0.0019,0.0045,0.0079,0.0031,0.0063,0.0048,0.005,Mine
0.0305,0.0363,0.0214,0.0227,0.0456,0.0665,0.0939,0.0972,0.2535,0.3127,0.2192,0.2621,0.24
19,0.2179,0.1159,0.1237,0.0886,0.1755,0.1758,0.154,0.0512,0.1805,0.4039,0.5697,0.6577,0.
7474,0.8543,0.9085,0.8668,0.8892,0.9065,0.8522,0.7204,0.62,0.6253,0.6848,0.7337,0.6281,0
.5725,0.6119,0.5597,0.4965,0.5027,0.5772,0.5907,0.4803,0.3877,0.2779,0.1427,0.0424,0.027
1,0.02,0.007,0.007,0.0086,0.0089,0.0074,0.0042,0.0055,0.0021,Mine
0.0217,0.0152,0.0346,0.0346,0.0484,0.0526,0.0773,0.0862,0.1451,0.211,0.2343,0.2087,0.164
5,0.1689,0.165,0.1967,0.2934,0.3709,0.4309,0.4161,0.5116,0.6501,0.7717,0.8491,0.9104,0.8
912,0.8189,0.6779,0.5368,0.5207,0.5651,0.5749,0.525,0.4255,0.333,0.2331,0.1451,0.1648,0.
2694,0.373,0.4467,0.4133,0.3743,0.3021,0.2069,0.179,0.1689,0.1341,0.0769,0.0222,0.0205,0
.0123,0.0067,0.0011,0.0026,0.0049,0.0029,0.0022,0.0022,0.0032,Mine
0.0072,0.0027,0.0089,0.0061,0.042,0.0865,0.1182,0.0999,0.1976,0.2318,0.2472,0.288,0.2126
,0.0708,0.1194,0.2808,0.4221,0.5279,0.5857,0.6153,0.6753,0.7873,0.8974,0.9828,1,0.846,0.
6055,0.3036,0.0144,0.2526,0.4335,0.4918,0.5409,0.5961,0.5248,0.3777,0.2369,0.172,0.1878,
0.325,0.2575,0.2423,0.2706,0.2323,0.1724,0.1457,0.1175,0.0868,0.0392,0.0131,0.0092,0.007
8,0.0071,0.0081,0.0034,0.0064,0.0037,0.0036,0.0012,0.0037,Mine
0.0163,0.0198,0.0202,0.0386,0.0752,0.1444,0.1487,0.1484,0.2442,0.2822,0.3691,0.375,0.392
7,0.3308,0.1085,0.1139,0.3446,0.5441,0.647,0.7276,0.7894,0.8264,0.8697,0.7836,0.714,0.56
98,0.2908,0.4636,0.6409,0.7405,0.8069,0.842,1,0.9536,0.6755,0.3905,0.1249,0.3629,0.6356,
0.8116,0.7664,0.5417,0.2614,0.1723,0.2814,0.2764,0.1985,0.1502,0.1219,0.0493,0.0027,0.00
77,0.0026,0.0031,0.0083,0.002,0.0084,0.0108,0.0083,0.0033,Mine
0.0221,0.0065,0.0164,0.0487,0.0519,0.0849,0.0812,0.1833,0.2228,0.181,0.2549,0.2984,0.262
4,0.1893,0.0668,0.2666,0.4274,0.6291,0.7782,0.7686,0.8099,0.8493,0.944,0.945,0.9655,0.80
45,0.4969,0.396,0.3856,0.5574,0.7309,0.8549,0.9425,0.8726,0.6673,0.4694,0.1546,0.1748,0.
3607,0.5208,0.5177,0.3702,0.224,0.0816,0.0395,0.0785,0.1052,0.1034,0.0764,0.0216,0.0167,
0.0089,0.0051,0.0015,0.0075,0.0058,0.0016,0.007,0.0074,0.0038,Mine
0.0137,0.0297,0.0116,0.0082,0.0241,0.0253,0.0279,0.013,0.0489,0.0874,0.11,0.1084,0.1094,
0.1023,0.0601,0.0906,0.1313,0.2758,0.366,0.5269,0.581,0.6181,0.5875,0.4639,0.5424,0.7367
,0.9089,1,0.8247,0.5441,0.3349,0.0877,0.16,0.4169,0.6576,0.739,0.7963,0.7493,0.6795,0.47
13,0.2355,0.1704,0.2728,0.4016,0.4125,0.347,0.2739,0.179,0.0922,0.0276,0.0169,0.0081,0.0
04,0.0025,0.0036,0.0058,0.0067,0.0035,0.0043,0.0033,Mine
0.0015,0.0186,0.0289,0.0195,0.0515,0.0817,0.1005,0.0124,0.1168,0.1476,0.2118,0.2575,0.23
54,0.1334,0.0092,0.1951,0.3685,0.4646,0.5418,0.626,0.742,0.8257,0.8609,0.84,0.8949,0.994
5,1,0.9649,0.8747,0.6257,0.2184,0.2945,0.3645,0.5012,0.7843,0.9361,0.8195,0.6207,0.4513,
0.3004,0.2674,0.2241,0.3141,0.3693,0.2986,0.2226,0.0849,0.0359,0.0289,0.0122,0.0045,0.01
08,0.0075,0.0089,0.0036,0.0029,0.0013,0.001,0.0032,0.0047,Mine
0.013,0.012,0.0436,0.0624,0.0428,0.0349,0.0384,0.0446,0.1318,0.1375,0.2026,0.2389,0.2112
,0.1444,0.0742,0.1533,0.3052,0.4116,0.5466,0.5933,0.6663,0.7333,0.7136,0.7014,0.7758,0.9
137,0.9964,1,0.8881,0.6585,0.2707,0.1746,0.2709,0.4853,0.7184,0.8209,0.7536,0.6496,0.470
8,0.3482,0.3508,0.3181,0.3524,0.3659,0.2846,0.1714,0.0694,0.0303,0.0292,0.0116,0.0024,0.
0084,0.01,0.0018,0.0035,0.0058,0.0011,0.0009,0.0033,0.0026,Mine
0.0134,0.0172,0.0178,0.0363,0.0444,0.0744,0.08,0.0456,0.0368,0.125,0.2405,0.2325,0.2523,
0.1472,0.0669,0.11,0.2353,0.3282,0.4416,0.5167,0.6508,0.7793,0.7978,0.7786,0.8587,0.9321
,0.9454,0.8645,0.722,0.485,0.1357,0.2951,0.4715,0.6036,0.8083,0.987,0.88,0.6411,0.4276,0
.2702,0.2642,0.3342,0.4335,0.4542,0.396,0.2525,0.1084,0.0372,0.0286,0.0099,0.0046,0.0094
,0.0048,0.0047,0.0016,0.0008,0.0042,0.0024,0.0027,0.0041,Mine
0.0179,0.0136,0.0408,0.0633,0.0596,0.0808,0.209,0.3465,0.5276,0.5965,0.6254,0.4507,0.369
3,0.2864,0.1635,0.0422,0.1785,0.4394,0.695,0.8097,0.855,0.8717,0.8601,0.9201,0.8729,0.80
84,0.8694,0.8411,0.5793,0.3754,0.3485,0.4639,0.6495,0.6901,0.5666,0.5188,0.506,0.3885,0.
3762,0.3738,0.2605,0.1591,0.1875,0.2267,0.1577,0.1211,0.0883,0.085,0.0355,0.0219,0.0086,
0.0123,0.006,0.0187,0.0111,0.0126,0.0081,0.0155,0.016,0.0085,Mine
0.018,0.0444,0.0476,0.0698,0.1615,0.0887,0.0596,0.1071,0.3175,0.2918,0.3273,0.3035,0.303
3,0.2587,0.1682,0.1308,0.2803,0.4519,0.6641,0.7683,0.696,0.4393,0.2432,0.2886,0.4974,0.8
172,1,0.9238,0.8519,0.7722,0.5772,0.519,0.6824,0.622,0.5054,0.3578,0.3809,0.3813,0.3359,
0.2771,0.3648,0.3834,0.3453,0.2096,0.1031,0.0798,0.0701,0.0526,0.0241,0.0117,0.0122,0.01
22,0.0114,0.0098,0.0027,0.0025,0.0026,0.005,0.0073,0.0022,Mine
0.0329,0.0216,0.0386,0.0627,0.1158,0.1482,0.2054,0.1605,0.2532,0.2672,0.3056,0.3161,0.23
14,0.2067,0.1804,0.2808,0.4423,0.5947,0.6601,0.5844,0.4539,0.4789,0.5646,0.5281,0.7115,1
,0.9564,0.609,0.5112,0.4,0.0482,0.1852,0.2186,0.1436,0.1757,0.1428,0.1644,0.3089,0.3648,
0.4441,0.3859,0.2813,0.1238,0.0953,0.1201,0.0825,0.0618,0.0141,0.0108,0.0124,0.0104,0.00
95,0.0151,0.0059,0.0015,0.0053,0.0016,0.0042,0.0053,0.0074,Mine
0.0191,0.0173,0.0291,0.0301,0.0463,0.069,0.0576,0.1103,0.2423,0.3134,0.4786,0.5239,0.439
3,0.344,0.2869,0.3889,0.442,0.3892,0.4088,0.5006,0.7271,0.9385,1,0.9831,0.9932,0.9161,0.
8237,0.6957,0.4536,0.3281,0.2522,0.3964,0.4154,0.3308,0.1445,0.1923,0.3208,0.3367,0.5683

,0.5505,0.3231,0.0448,0.3131,0.3387,0.413,0.3639,0.2069,0.0859,0.06,0.0267,0.0125,0.004,0.0136,0.0137,0.0172,0.0132,0.011,0.0122,0.0114,0.0068,Mine
0.0294,0.0123,0.0117,0.0113,0.0497,0.0998,0.1326,0.1117,0.2984,0.3473,0.4231,0.5044,0.5237,0.4398,0.3236,0.2956,0.3286,0.3231,0.4528,0.6339,0.7044,0.8314,0.8449,0.8512,0.9138,0.9985,1,0.7544,0.4661,0.3924,0.3849,0.4674,0.4245,0.3095,0.0752,0.2885,0.4072,0.317,0.2863,0.2634,0.0541,0.1874,0.3459,0.4646,0.4366,0.2581,0.1319,0.0505,0.0112,0.0059,0.0041,0.0056,0.0104,0.0079,0.0014,0.0054,0.0015,0.0006,0.0081,0.0043,Mine
0.0635,0.0709,0.0453,0.0333,0.0185,0.126,0.1015,0.1918,0.3362,0.39,0.4674,0.5632,0.5506,0.4343,0.3052,0.3492,0.3975,0.3875,0.528,0.7198,0.7702,0.8562,0.8688,0.9236,1,0.9662,0.9822,0.736,0.4158,0.2918,0.328,0.369,0.345,0.2863,0.0864,0.3724,0.4649,0.3488,0.1817,0.1142,0.122,0.2621,0.4461,0.4726,0.3263,0.1423,0.039,0.0406,0.0311,0.0086,0.0154,0.0048,0.0025,0.0087,0.0072,0.0095,0.0086,0.0085,0.004,0.0051,Mine
0.0201,0.0165,0.0344,0.033,0.0397,0.0443,0.0684,0.0903,0.1739,0.2571,0.2931,0.3108,0.3603,0.3002,0.2718,0.2007,0.1801,0.2234,0.3568,0.5492,0.7209,0.8318,0.8864,0.952,0.9637,1,0.9673,0.8664,0.7896,0.6345,0.5351,0.4056,0.2563,0.2894,0.3588,0.4296,0.4773,0.4516,0.3765,0.3051,0.1921,0.1184,0.1984,0.157,0.066,0.1294,0.0797,0.0052,0.0233,0.0152,0.0125,0.0054,0.0057,0.0137,0.0109,0.0035,0.0056,0.0105,0.0082,0.0036,Mine
0.0197,0.0394,0.0384,0.0076,0.0251,0.0629,0.0747,0.0578,0.1357,0.1695,0.1734,0.247,0.3141,0.3297,0.2759,0.2056,0.1162,0.1884,0.339,0.3926,0.4282,0.5418,0.6448,0.7223,0.7853,0.7984,0.8847,0.9582,0.899,0.6831,0.6108,0.548,0.5058,0.4476,0.2401,0.1405,0.1772,0.1742,0.3326,0.4021,0.3009,0.2075,0.1206,0.0255,0.0298,0.0691,0.0781,0.0777,0.0369,0.0057,0.0091,0.0134,0.0097,0.0042,0.0058,0.0072,0.0045,0.0047,0.0054,Mine
0.0394,0.042,0.0446,0.0551,0.0597,0.1416,0.0956,0.0802,0.1618,0.2558,0.3078,0.3404,0.34,0.3951,0.3352,0.2252,0.2086,0.2248,0.3382,0.4578,0.6474,0.6708,0.7007,0.7619,0.7745,0.6767,0.7373,0.7834,0.9619,1,0.8086,0.5558,0.5409,0.4988,0.3108,0.2897,0.2244,0.096,0.2287,0.3228,0.3454,0.3882,0.324,0.0926,0.1173,0.0566,0.0766,0.0969,0.0588,0.005,0.0118,0.0146,0.004,0.0114,0.0032,0.0062,0.0101,0.0068,0.0053,0.0087,Mine
0.031,0.0221,0.0433,0.0191,0.0964,0.1827,0.1106,0.1702,0.2804,0.4432,0.5222,0.5611,0.5379,0.4048,0.2245,0.1784,0.2297,0.272,0.5209,0.6898,0.8202,0.878,0.76,0.7616,0.7152,0.7288,0.8686,0.9509,0.8348,0.573,0.4363,0.4289,0.424,0.3156,0.1287,0.1477,0.2062,0.24,0.5173,0.5168,0.1491,0.2407,0.3415,0.4494,0.4624,0.2001,0.0775,0.1232,0.0783,0.0089,0.0249,0.0204,0.0059,0.0053,0.0079,0.0037,0.0015,0.0056,0.0067,0.0054,Mine
0.0423,0.0321,0.0709,0.0108,0.107,0.0973,0.0961,0.1323,0.2462,0.2696,0.3412,0.4292,0.3682,0.394,0.2965,0.3172,0.2825,0.305,0.2408,0.542,0.6802,0.632,0.5824,0.6805,0.5984,0.8412,0.9911,0.9187,0.8005,0.6713,0.5632,0.7332,0.6038,0.2575,0.0349,0.1799,0.3039,0.476,0.5756,0.4254,0.5046,0.7179,0.6163,0.5663,0.5749,0.3593,0.2526,0.2299,0.1271,0.0356,0.0367,0.0176,0.0035,0.0093,0.0121,0.0075,0.0056,0.0021,0.0043,0.0017,Mine
0.0095,0.0308,0.0539,0.0411,0.0613,0.1039,0.1016,0.1394,0.2592,0.3745,0.4229,0.4499,0.5404,0.4303,0.3333,0.3496,0.3426,0.2851,0.4062,0.6833,0.765,0.667,0.5703,0.5995,0.6484,0.8614,0.9819,0.938,0.8435,0.6074,0.5403,0.689,0.5977,0.3244,0.0516,0.3157,0.359,0.3881,0.5716,0.4314,0.3051,0.4393,0.4302,0.4831,0.5084,0.1952,0.1539,0.2037,0.1054,0.0251,0.0357,0.0181,0.0019,0.0102,0.0133,0.004,0.0042,0.003,0.0031,0.0033,Mine
0.0096,0.0404,0.0682,0.0688,0.0887,0.0932,0.0955,0.214,0.2546,0.2952,0.4025,0.5148,0.4901,0.4127,0.3575,0.3447,0.3068,0.2945,0.4351,0.7264,0.8147,0.8103,0.6665,0.6958,0.7748,0.8688,1,0.9941,0.8793,0.6482,0.5876,0.6408,0.4972,0.2755,0.03,0.3356,0.3167,0.4133,0.6281,0.4977,0.2613,0.4697,0.4806,0.4921,0.5294,0.2216,0.1401,0.1888,0.0947,0.0134,0.031,0.0237,0.0078,0.0144,0.017,0.0012,0.0109,0.0036,0.0043,0.0018,Mine
0.0269,0.0383,0.0505,0.0707,0.1313,0.2103,0.2263,0.2524,0.3595,0.5915,0.6675,0.5679,0.5175,0.3334,0.2002,0.2856,0.2937,0.3424,0.5949,0.7526,0.8959,0.8147,0.7109,0.7378,0.7201,0.8254,0.8917,0.982,0.8179,0.4848,0.3203,0.2775,0.2382,0.2911,0.1675,0.3156,0.1869,0.3391,0.5993,0.4124,0.1181,0.3651,0.4655,0.4777,0.3517,0.092,0.1227,0.1785,0.1085,0.03,0.0346,0.0167,0.0199,0.0145,0.0081,0.0045,0.0043,0.0027,0.0055,0.0057,Mine
0.034,0.0625,0.0381,0.0257,0.0441,0.1027,0.1287,0.185,0.2647,0.4117,0.5245,0.5341,0.5554,0.3915,0.295,0.3075,0.3021,0.2719,0.5443,0.7932,0.8751,0.8667,0.7107,0.6911,0.7287,0.8792,1,0.9816,0.8984,0.6048,0.4934,0.5371,0.4586,0.2908,0.0774,0.2249,0.1602,0.3958,0.6117,0.5196,0.2321,0.437,0.3797,0.4322,0.4892,0.1901,0.094,0.1364,0.0906,0.0144,0.0329,0.0141,0.0019,0.0067,0.0099,0.0042,0.0057,0.0051,0.0033,0.0058,Mine
0.0209,0.0191,0.0411,0.0321,0.0698,0.1579,0.1438,0.1402,0.3048,0.3914,0.3504,0.3669,0.3943,0.3311,0.3331,0.3002,0.2324,0.1381,0.345,0.4428,0.489,0.3677,0.4379,0.4864,0.6207,0.7256,0.6624,0.7689,0.7981,0.8577,0.9273,0.7009,0.4851,0.3409,0.1406,0.1147,0.1433,0.182,0.3605,0.5529,0.5988,0.5077,0.5512,0.5027,0.7034,0.5904,0.4069,0.2761,0.1584,0.051,0.0054,0.0078,0.0201,0.0104,0.0039,0.0031,0.0062,0.0087,0.007,0.0042,Mine
0.0368,0.0279,0.0103,0.0566,0.0759,0.0679,0.097,0.1473,0.2164,0.2544,0.2936,0.2935,0.2657,0.3187,0.2794,0.2534,0.198,0.1929,0.2826,0.3245,0.3504,0.3324,0.4217,0.4774,0.4808,0.6325,0.8334,0.9458,1,0.8425,0.5524,0.4795,0.52,0.3968,0.194,0.1519,0.201,0.1736,0.1029,0.2244,0.3717,0.4449,0.3939,0.203,0.201,0.2187,0.184,0.1477,0.0971,0.0224,0.0151,0.0105,0.0024,0.0018,0.0057,0.0092,0.0009,0.0086,0.011,0.0052,Mine
0.0089,0.0274,0.0248,0.0237,0.0224,0.0845,0.1488,0.1224,0.1569,0.2119,0.3003,0.3094,0.2743,0.2547,0.187,0.1452,0.1457,0.2429,0.3259,0.3679,0.3355,0.31,0.3914,0.528,0.6409,0.7707,0.8754,1,0.9806,0.6969,0.4973,0.502,0.5359,0.3842,0.1848,0.1149,0.157,0.1311,0.1583,0.2631,0.3103,0.4512,0.3785,0.1269,0.1459,0.1092,0.1485,0.1385,0.0716,0.0176,0.0199,0.0096,0.0103,0.0093,0.0025,0.0044,0.0021,0.0069,0.006,0.0018,Mine
0.0158,0.0239,0.015,0.0494,0.0988,0.1425,0.1463,0.1219,0.1697,0.1923,0.2361,0.2719,0.3049,0.2986,0.2226,0.1745,0.2459,0.31,0.3572,0.4283,0.4268,0.3735,0.4585,0.6094,0.7221,0.7595,0.8706,1,0.9815,0.7187,0.5848,0.4192,0.3756,0.3263,0.1944,0.1394,0.167,0.1275,0.1666,0.2574,0.2258,0.2777,0.1613,0.1335,0.1976,0.1234,0.1554,0.1057,0.049,0.0097,0.0223,0.0121,0.0108,0.0057,0.0028,0.0079,0.0034,0.0046,0.0022,0.0021,Mine
0.0156,0.021,0.0282,0.0596,0.0462,0.0779,0.1365,0.078,0.1038,0.1567,0.2476,0.2783,0.2896,0.2956,0.3189,0.1892,0.173,0.2226,0.2427,0.3149,0.4102,0.3808,0.4896,0.6292,0.7519,0.79

85,0.883,0.9915,0.9223,0.6981,0.6167,0.5069,0.3921,0.3524,0.2183,0.1245,0.1592,0.1626,0.2356,0.2483,0.2437,0.2715,0.1184,0.1157,0.1449,0.1883,0.1954,0.1492,0.0511,0.0155,0.0189,0.015,0.006,0.0082,0.0091,0.0038,0.0056,0.0056,0.0048,0.0024,Mine
0.0315,0.0252,0.0167,0.0479,0.0902,0.1057,0.1024,0.1209,0.1241,0.1533,0.2128,0.2536,0.2686,0.2803,0.1886,0.1485,0.216,0.2417,0.2989,0.3341,0.3786,0.3956,0.5232,0.6913,0.7868,0.8337,0.9199,1,0.899,0.6456,0.5967,0.4355,0.2997,0.2294,0.1866,0.0922,0.1829,0.1743,0.2452,0.2407,0.2518,0.3184,0.1685,0.0675,0.1186,0.1833,0.1878,0.1114,0.031,0.0143,0.0138,0.0108,0.0062,0.0044,0.0072,0.0007,0.0054,0.0035,0.0001,0.0055,Mine
0.0056,0.0267,0.0221,0.0561,0.0936,0.1146,0.0706,0.0996,0.1673,0.1859,0.2481,0.2712,0.2934,0.2637,0.188,0.1405,0.2028,0.2613,0.2778,0.3346,0.383,0.4003,0.5114,0.686,0.749,0.7843,0.9021,1,0.8888,0.6511,0.6083,0.4463,0.2948,0.1729,0.1488,0.0801,0.177,0.1382,0.2404,0.2046,0.197,0.2778,0.1377,0.0685,0.0664,0.1665,0.1807,0.1245,0.0516,0.0044,0.0185,0.0072,0.0055,0.0074,0.0068,0.0084,0.0037,0.0024,0.0034,0.0007,Mine
0.0203,0.0121,0.038,0.0128,0.0537,0.0874,0.1021,0.0852,0.1136,0.1747,0.2198,0.2721,0.2105,0.1727,0.204,0.1786,0.1318,0.226,0.2358,0.3107,0.3906,0.3631,0.4809,0.6531,0.7812,0.8395,0.918,0.9769,0.8937,0.7022,0.65,0.5069,0.3903,0.3009,0.1565,0.0985,0.22,0.2243,0.2736,0.2152,0.2438,0.3154,0.2112,0.0991,0.0594,0.194,0.1937,0.1082,0.0336,0.0177,0.0209,0.0134,0.0094,0.0047,0.0045,0.0042,0.0028,0.0036,0.0013,0.0016,Mine
0.0392,0.0108,0.0267,0.0257,0.041,0.0491,0.1053,0.169,0.2105,0.2471,0.268,0.3049,0.2863,0.2294,0.1165,0.2127,0.2062,0.2222,0.3241,0.433,0.5071,0.5944,0.7078,0.7641,0.8878,0.9711,0.988,0.9812,0.9464,0.8542,0.6457,0.3397,0.3828,0.3204,0.1331,0.044,0.1234,0.203,0.1652,0.1043,0.1066,0.211,0.2417,0.1631,0.0769,0.0723,0.0912,0.0812,0.0496,0.0101,0.0089,0.0083,0.008,0.0026,0.0079,0.0042,0.0071,0.0044,0.0022,0.0014,Mine
0.0129,0.0141,0.0309,0.0375,0.0767,0.0787,0.0662,0.1108,0.1777,0.2245,0.2431,0.3134,0.3206,0.2917,0.2249,0.2347,0.2143,0.2939,0.4898,0.6127,0.7531,0.7718,0.7432,0.8673,0.9308,0.9836,1,0.9595,0.8722,0.6862,0.4901,0.328,0.3115,0.1969,0.1019,0.0317,0.0756,0.0907,0.1066,0.138,0.0665,0.1475,0.247,0.2788,0.2709,0.2283,0.1818,0.1185,0.0546,0.0219,0.0204,0.0124,0.0093,0.0072,0.0019,0.0027,0.0054,0.0017,0.0024,0.0029,Mine
0.005,0.0017,0.027,0.045,0.0958,0.083,0.0879,0.122,0.1977,0.2282,0.2521,0.3484,0.3309,0.2614,0.1782,0.2055,0.2298,0.3545,0.6218,0.7265,0.8346,0.8268,0.8366,0.951,0.9801,0.9974,1,0.9036,0.6409,0.3857,0.2908,0.204,0.1653,0.1769,0.114,0.074,0.0941,0.0621,0.0426,0.0572,0.1068,0.1909,0.2229,0.2203,0.2265,0.1766,0.1097,0.0558,0.0142,0.0281,0.0165,0.0056,0.001,0.0027,0.0062,0.0024,0.0063,0.0017,0.0028,Mine
0.0366,0.0421,0.0504,0.025,0.0596,0.0252,0.0958,0.0991,0.1419,0.1847,0.2222,0.2648,0.2508,0.2291,0.1555,0.1863,0.2387,0.3345,0.5233,0.6684,0.7766,0.7928,0.794,0.9129,0.9498,0.9835,1,0.9471,0.8237,0.6252,0.4181,0.3209,0.2658,0.2196,0.1588,0.0561,0.0948,0.17,0.1215,0.1282,0.0386,0.1329,0.2331,0.2468,0.196,0.1985,0.157,0.0921,0.0549,0.0194,0.0166,0.0132,0.0027,0.0022,0.0059,0.0016,0.0025,0.0017,0.0027,0.0027,Mine
0.0116,0.0744,0.0367,0.0225,0.0076,0.0545,0.111,0.1069,0.1708,0.2271,0.3171,0.2882,0.2657,0.2307,0.1889,0.1791,0.2298,0.3715,0.6223,0.726,0.7934,0.8045,0.8067,0.9173,0.9327,0.9562,1,0.9818,0.8684,0.6381,0.3997,0.3242,0.2835,0.2413,0.2321,0.126,0.0693,0.0701,0.1439,0.1475,0.0438,0.0469,0.1476,0.1742,0.1555,0.1651,0.1181,0.072,0.0321,0.0056,0.0202,0.0141,0.0103,0.01,0.0034,0.0026,0.0037,0.0044,0.0057,0.0035,Mine
0.0131,0.0387,0.0329,0.0078,0.0721,0.1341,0.1626,0.1902,0.261,0.3193,0.3468,0.3738,0.3055,0.1926,0.1385,0.2122,0.2758,0.4576,0.6487,0.7154,0.801,0.7924,0.8793,1,0.9865,0.9474,0.9474,0.9315,0.8326,0.6213,0.3772,0.2822,0.2042,0.219,0.2223,0.1327,0.0521,0.0618,0.1416,0.146,0.0846,0.1055,0.1639,0.1916,0.2085,0.2335,0.1964,0.13,0.0633,0.0183,0.0137,0.015,0.0076,0.0032,0.0037,0.0071,0.004,0.0009,0.0015,0.0085,Mine
0.0335,0.0258,0.0398,0.057,0.0529,0.1091,0.1709,0.1684,0.1865,0.266,0.3188,0.3553,0.3116,0.1965,0.178,0.2794,0.287,0.3969,0.5599,0.6936,0.7969,0.7452,0.8203,0.9261,0.881,0.8814,0.9301,0.9955,0.8576,0.6069,0.3934,0.2464,0.1645,0.114,0.0956,0.008,0.0702,0.0936,0.0894,0.1127,0.0873,0.102,0.1964,0.2256,0.1814,0.2012,0.1688,0.1037,0.0501,0.0136,0.013,0.012,0.0039,0.0053,0.0062,0.0046,0.0045,0.0022,0.0005,0.0031,Mine
0.0272,0.0378,0.0488,0.0848,0.1127,0.1103,0.1349,0.2337,0.3113,0.3997,0.3941,0.3309,0.2926,0.176,0.1739,0.2043,0.2088,0.2678,0.2434,0.1839,0.2802,0.6172,0.8015,0.8313,0.844,0.8494,0.9168,1,0.7896,0.5371,0.6472,0.6505,0.4959,0.2175,0.099,0.0434,0.1708,0.1979,0.188,0.1108,0.1702,0.0585,0.0638,0.1391,0.0638,0.0581,0.0641,0.1044,0.0732,0.0275,0.0146,0.0091,0.0045,0.0043,0.0043,0.0098,0.0054,0.0051,0.0065,0.0103,Mine
0.0187,0.0346,0.0168,0.0177,0.0393,0.163,0.2028,0.1694,0.2328,0.2684,0.3108,0.2933,0.2275,0.0994,0.1801,0.22,0.2732,0.2862,0.2034,0.174,0.413,0.6879,0.812,0.8453,0.8919,0.93,0.9987,1,0.8104,0.6199,0.6041,0.5547,0.416,0.1472,0.0849,0.0608,0.0969,0.1411,0.1676,0.12,0.1201,0.1036,0.1977,0.1339,0.0902,0.1085,0.1521,0.1363,0.0858,0.029,0.0203,0.0116,0.0098,0.0199,0.0033,0.0101,0.0065,0.0115,0.0193,0.0157,Mine
0.0323,0.0101,0.0298,0.0564,0.076,0.0958,0.099,0.1018,0.103,0.2154,0.3085,0.3425,0.299,0.1402,0.1235,0.1534,0.1901,0.2429,0.212,0.2395,0.3272,0.5949,0.8302,0.9045,0.9888,0.9912,0.9448,1,0.9092,0.7412,0.7691,0.7117,0.5304,0.2131,0.0928,0.1297,0.1159,0.1226,0.1768,0.0345,0.1562,0.0824,0.1149,0.1694,0.0954,0.008,0.079,0.1255,0.0647,0.0179,0.0051,0.0061,0.0093,0.0135,0.0063,0.0063,0.0034,0.0032,0.0062,0.0067,Mine
0.0522,0.0437,0.018,0.0292,0.0351,0.1171,0.1257,0.1178,0.1258,0.2529,0.2716,0.2374,0.1878,0.0983,0.0683,0.1503,0.1723,0.2339,0.1962,0.1395,0.3164,0.5888,0.7631,0.8473,0.9424,0.9986,0.9699,1,0.863,0.6979,0.7717,0.7305,0.5197,0.1786,0.1098,0.1446,0.1066,0.144,0.1929,0.0325,0.149,0.0328,0.0537,0.1309,0.091,0.0757,0.1059,0.1005,0.0535,0.0235,0.0155,0.016,0.0029,0.0051,0.0062,0.0089,0.014,0.0138,0.0077,0.0031,Mine
0.0303,0.0353,0.049,0.0608,0.0167,0.1354,0.1465,0.1123,0.1945,0.2354,0.2898,0.2812,0.1578,0.0273,0.0673,0.1444,0.207,0.2645,0.2828,0.4293,0.5685,0.699,0.7246,0.7622,0.9242,1,0.9979,0.8297,0.7032,0.7141,0.6893,0.4961,0.2584,0.0969,0.0776,0.0364,0.1572,0.1823,0.1349,0.0849,0.0492,0.1367,0.1552,0.1548,0.1319,0.0985,0.1258,0.0954,0.0489,0.0241,0.0042,0.0086,0.0046,0.0126,0.0036,0.0035,0.0034,0.0079,0.0036,0.0048,Mine

0.026,0.0363,0.0136,0.0272,0.0214,0.0338,0.0655,0.14,0.1843,0.2354,0.272,0.2442,0.1665,0
.0336,0.1302,0.1708,0.2177,0.3175,0.3714,0.4552,0.57,0.7397,0.8062,0.8837,0.9432,1,0.937
5,0.7603,0.7123,0.8358,0.7622,0.4567,0.1715,0.1549,0.1641,0.1869,0.2655,0.1713,0.0959,0.
0768,0.0847,0.2076,0.2505,0.1862,0.1439,0.147,0.0991,0.0041,0.0154,0.0116,0.0181,0.0146,
0.0129,0.0047,0.0039,0.0061,0.004,0.0036,0.0061,0.0115,Mine

3.2 Sonar-test.txt

(importar a Weka cambiándolo a formato .arff)

1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,3
3,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61
0.0079,0.0086,0.0055,0.025,0.0344,0.0546,0.0528,0.0958,0.1009,0.124,0.1097,0.1215,0.1874
,0.3383,0.3227,0.2723,0.3943,0.6432,0.7271,0.8673,0.9674,0.9847,0.948,0.8036,0.6833,0.51
36,0.309,0.0832,0.4019,0.2344,0.1905,0.1235,0.1717,0.2351,0.2489,0.3649,0.3382,0.1589,0.
0989,0.1089,0.1043,0.0839,0.1391,0.0819,0.0678,0.0663,0.1202,0.0692,0.0152,0.0266,0.0174
,0.0176,0.0127,0.0088,0.0098,0.0019,0.0059,0.0058,0.0059,0.0032,?
0.0411,0.0277,0.0604,0.0525,0.0489,0.0385,0.0611,0.1117,0.1237,0.23,0.137,0.1335,0.2137,
0.1526,0.0775,0.1196,0.0903,0.0689,0.2071,0.2975,0.2836,0.3353,0.3622,0.3202,0.3452,0.35
62,0.3892,0.6622,0.9254,1,0.8528,0.6297,0.525,0.4012,0.2901,0.2007,0.3356,0.4799,0.6147,
0.6246,0.4973,0.3492,0.2662,0.3137,0.4282,0.4262,0.3511,0.2458,0.1259,0.0327,0.0181,0.02
17,0.0038,0.0019,0.0065,0.0132,0.0108,0.005,0.0085,0.0044,?
0.0238,0.0318,0.0422,0.0399,0.0788,0.0766,0.0881,0.1143,0.1594,0.2048,0.2652,0.31,0.2381
,0.1918,0.143,0.1735,0.1781,0.2852,0.5036,0.6166,0.7616,0.8125,0.7793,0.8788,0.8813,0.94
7,1,0.9739,0.8446,0.6151,0.4302,0.3165,0.2869,0.2017,0.1206,0.0271,0.058,0.1262,0.1072,0
.1082,0.036,0.1197,0.2061,0.2054,0.1878,0.2047,0.1716,0.1069,0.0477,0.017,0.0186,0.0096,
0.0071,0.0084,0.0038,0.0026,0.0028,0.0013,0.0035,0.006,?
0.0459,0.0437,0.0347,0.0456,0.0067,0.089,0.1798,0.1741,0.1598,0.1408,0.2693,0.3259,0.454
5,0.5785,0.4471,0.2231,0.2164,0.3201,0.2915,0.4235,0.446,0.238,0.6415,0.8966,0.8918,0.75
29,0.6838,0.839,1,0.8362,0.5427,0.4577,0.8067,0.6973,0.3915,0.1558,0.1598,0.2161,0.5178,
0.4782,0.2344,0.3599,0.2785,0.1807,0.0352,0.0473,0.0322,0.0408,0.0163,0.0088,0.0121,0.00
67,0.0032,0.0109,0.0164,0.0151,0.007,0.0085,0.0117,0.0056,?
0.0124,0.0433,0.0604,0.0449,0.0597,0.0355,0.0531,0.0343,0.1052,0.212,0.164,0.1901,0.3026
,0.2019,0.0592,0.239,0.3657,0.3809,0.5929,0.6299,0.5801,0.4574,0.4449,0.3691,0.6446,0.89
4,0.8978,0.498,0.3333,0.235,0.1553,0.3666,0.434,0.3082,0.3024,0.4109,0.5501,0.4129,0.549
9,0.5018,0.3132,0.2802,0.2351,0.2298,0.1155,0.0724,0.0621,0.0318,0.045,0.0167,0.0078,0.0
083,0.0057,0.0174,0.0188,0.0054,0.0114,0.0196,0.0147,0.0062,?
0.026,0.0192,0.0254,0.0061,0.0352,0.0701,0.1263,0.108,0.1523,0.163,0.103,0.2187,0.1542,0
.263,0.294,0.2978,0.0699,0.1401,0.299,0.3915,0.3598,0.2403,0.4208,0.5675,0.6094,0.6323,0
.6549,0.7673,1,0.8463,0.5509,0.4444,0.5169,0.4268,0.1802,0.0791,0.0535,0.1906,0.2561,0.2
153,0.2769,0.2841,0.1733,0.0815,0.0335,0.0933,0.1018,0.0309,0.0208,0.0318,0.0132,0.0118,
0.012,0.0051,0.007,0.0015,0.0035,0.0008,0.0044,0.0077,?
0.0181,0.0146,0.0026,0.0141,0.0421,0.0473,0.0361,0.0741,0.1398,0.1045,0.0904,0.0671,0.09
97,0.1056,0.0346,0.1231,0.1626,0.3652,0.3262,0.2995,0.2109,0.2104,0.2085,0.2282,0.0747,0
.1969,0.4086,0.6385,0.797,0.7508,0.5517,0.2214,0.4672,0.4479,0.2297,0.3235,0.448,0.5581,
0.652,0.5354,0.2478,0.2268,0.1788,0.0898,0.0536,0.0374,0.099,0.0956,0.0317,0.0142,0.0076
,0.0223,0.0255,0.0145,0.0233,0.0041,0.0018,0.0048,0.0089,0.0085,?
0.0491,0.0279,0.0592,0.127,0.1772,0.1908,0.2217,0.0768,0.1246,0.2028,0.0947,0.2497,0.220
9,0.3195,0.334,0.3323,0.278,0.2975,0.2948,0.1729,0.3264,0.3834,0.3523,0.541,0.5228,0.447
5,0.534,0.5323,0.3907,0.3456,0.4091,0.4639,0.558,0.5727,0.6355,0.7563,0.6903,0.6176,0.53
79,0.5622,0.6508,0.4797,0.3736,0.2804,0.1982,0.2438,0.1789,0.1706,0.0762,0.0238,0.0268,0
.0081,0.0129,0.0161,0.0063,0.0119,0.0194,0.014,0.0332,0.0439,?

3.3 Valores reales de test

Instance	Actual value
1	Mine
2	Mine
3	Rock
4	Rock
5	Rock
6	Rock
7	Mine