UIL Computer Science Competition

Region 2019

JUDGES PACKET - CONFIDENTIAL

I. Instructions

1. The attached printouts of the judge test data are provided for the reference of the contest director and programming judges. Additional copies may be made if needed for this purpose.

2. This packet must remain CONFIDENTIAL. Additional copies may be made and returned to schools when other confidential contest material is returned.

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Problem #1
60 Points

1. Andy

Program Name: Andy.java **Input File: None**

Test Output To Screen:

```
    ooooo+
   ooooo++
  ooooo+++
ooooo++++
xxxxx++++
xxxxx+++
xxxxx++
xxxxx+
```

Problem #2
60 Points

2. Belle

Program Name: Belle.java **Input File: belle.dat**

Test Input File:

```
10
28 21
3 7
0 6
14 24
3 7
11 8
6 6
42 7
2 3
14 3
```

Test Output To Screen:

```
28
7
6
24
7
11
6
42
3
14
```

Problem #3
60 Points

3. Callen

Program Name: Callen.java **Input File: callen.dat**

Test Input File:

```
20 -10 10 15 30 5
-110 0 25 70 20 15
50 -30 5 5 100 5
30 -50 4 3 70 3
```

Test Output To Screen:

```
      Wind Speeds
  Temps     15     20     25     30
     20    6.2    4.2    2.6    1.3
     10   -6.6   -8.9  -10.7  -12.3
      0  -19.4  -22.0  -24.1  -25.9
    -10  -32.2  -35.1  -37.5  -39.4
*************************
      Wind Speeds
  Temps     20     35     50     65
      0  -22.0  -27.4  -31.1  -34.0
    -25  -54.8  -61.8  -66.6  -70.4
    -50  -87.6  -96.2 -102.2 -106.7
    -75 -120.4 -130.6 -137.7 -143.1
   -100 -153.2 -165.1 -173.2 -179.5
*************************
      Wind Speeds
  Temps     5     10     15     20     25     30     35     40     45     50     55     60     65     70     75     80     85     90     95    100
     50   48.2   46.0   44.6   43.6   42.8   42.0   41.4   40.9   40.4   39.9   39.5   39.1   38.8   38.4   38.1   37.8   37.6   37.3   37.0   36.8
     45   42.3   39.8   38.2   37.0   36.1   35.3   34.5   33.9   33.3   32.8   32.4   31.9   31.5   31.1   30.8   30.4   30.1   29.8   29.5   29.2
     40   36.5   33.6   31.8   30.5   29.4   28.5   27.7   26.9   26.3   25.7   25.2   24.7   24.2   23.8   23.4   23.0   22.6   22.3   22.0   21.6
     35   30.6   27.4   25.4   23.9   22.7   21.7   20.8   20.0   19.3   18.6   18.0   17.5   17.0   16.5   16.0   15.6   15.2   14.8   14.4   14.1
     30   24.7   21.2   19.0   17.4   16.0   14.9   13.9   13.0   12.2   11.5   10.9   10.2    9.7    9.1    8.6    8.2    7.7    7.3    6.9    6.5
     25   18.9   15.1   12.6   10.8    9.3    8.1    7.0    6.1    5.2    4.4    3.7    3.0    2.4    1.8    1.3    0.8    0.3   -0.2   -0.7   -1.1
     20   13.0    8.9    6.2    4.2    2.6    1.3    0.1   -0.9   -1.8   -2.7   -3.5   -4.2   -4.9   -5.5   -6.1   -6.7   -7.2   -7.7   -8.2   -8.7
     15    7.1    2.7   -0.2   -2.3   -4.0   -5.5   -6.8   -7.9   -8.9   -9.8  -10.6  -11.4  -12.1  -12.8  -13.5  -14.1  -14.7  -15.2  -15.7  -16.2
     10    1.2   -3.5   -6.6   -8.9  -10.7  -12.3  -13.6  -14.8  -15.9  -16.9  -17.8  -18.6  -19.4  -20.2  -20.8  -21.5  -22.1  -22.7  -23.3  -23.8
      5   -4.6   -9.7  -13.0  -15.4  -17.4  -19.1  -20.5  -21.8  -23.0  -24.0  -25.0  -25.9  -26.7  -27.5  -28.2  -28.9  -29.6  -30.2  -30.8  -31.4
      0  -10.5  -15.9  -19.4  -22.0  -24.1  -25.9  -27.4  -28.8  -30.0  -31.1  -32.1  -33.1  -34.0  -34.8  -35.6  -36.3  -37.0  -37.7  -38.3  -39.0
     -5  -16.4  -22.1  -25.8  -28.6  -30.8  -32.7  -34.3  -35.7  -37.0  -38.2  -39.3  -40.3  -41.3  -42.1  -43.0  -43.7  -44.5  -45.2  -45.9  -46.5
    -10  -22.3  -28.3  -32.2  -35.1  -37.5  -39.4  -41.2  -42.7  -44.1  -45.3  -46.5  -47.5  -48.5  -49.5  -50.3  -51.2  -52.0  -52.7  -53.4  -54.1
    -15  -28.1  -34.5  -38.6  -41.7  -44.1  -46.2  -48.1  -49.7  -51.1  -52.4  -53.6  -54.8  -55.8  -56.8  -57.7  -58.6  -59.4  -60.2  -61.0  -61.7
    -20  -34.0  -40.7  -45.0  -48.2  -50.8  -53.0  -54.9  -56.6  -58.1  -59.5  -60.8  -62.0  -63.1  -64.1  -65.1  -66.0  -66.9  -67.7  -68.5  -69.2
    -25  -39.9  -46.9  -51.4  -54.8  -57.5  -59.8  -61.8  -63.6  -65.2  -66.6  -68.0  -69.2  -70.4  -71.4  -72.5  -73.4  -74.3  -75.2  -76.0  -76.8
    -30  -45.7  -53.1  -57.8  -61.4  -64.2  -66.6  -68.7  -70.6  -72.2  -73.7  -75.1  -76.4  -77.6  -78.8  -79.8  -80.8  -81.8  -82.7  -83.6  -84.4
*************************
      Wind Speeds
  Temps     3      6      9     12     15     18     21     24     27     30     33     36     39     42     45     48     51     54     57     60     63     66     69
     30   27.1   23.8   21.8   20.3   19.0   18.0   17.1   16.3   15.5   14.9   14.3   13.7   13.2   12.7   12.2   11.8   11.4   11.0   10.6   10.2    9.9    9.6    9.2
     26   22.5   19.1   16.9   15.2   13.9   12.8   11.8   10.9   10.2    9.4    8.8    8.2    7.6    7.1    6.6    6.1    5.7    5.3    4.9    4.5    4.1    3.7    3.4
     22   18.0   14.3   12.0   10.2    8.8    7.6    6.5    5.6    4.8    4.0    3.3    2.7    2.1    1.5    1.0    0.5   -0.0   -0.5   -0.9   -1.3   -1.7   -2.1   -2.5
     18   13.5    9.6    7.1    5.2    3.7    2.4    1.3    0.3   -0.6   -1.4   -2.2   -2.8   -3.5   -4.1   -4.7   -5.2   -5.7   -6.2   -6.6   -7.1   -7.5   -7.9   -8.3
     14    9.0    4.8    2.1    0.1   -1.5   -2.8   -4.0   -5.1   -6.0   -6.9   -7.6   -8.4   -9.0   -9.7  -10.3  -10.9  -11.4  -11.9  -12.4  -12.9  -13.3  -13.7  -14.2
     10    4.4    0.0   -2.8   -4.9   -6.6   -8.0   -9.3  -10.4  -11.4  -12.3  -13.1  -13.9  -14.6  -15.3  -15.9  -16.5  -17.1  -17.6  -18.1  -18.6  -19.1  -19.6  -20.0
      6   -0.1   -4.7   -7.7   -9.9  -11.7  -13.2  -14.5  -15.7  -16.8  -17.7  -18.6  -19.4  -20.2  -20.9  -21.5  -22.2  -22.8  -23.4  -23.9  -24.4  -24.9  -25.4  -25.9
      2   -4.6   -9.5  -12.6  -14.9  -16.8  -18.4  -19.8  -21.0  -22.1  -23.1  -24.1  -24.9  -25.7  -26.5  -27.2  -27.8  -28.5  -29.1  -29.7  -30.2  -30.7  -31.2  -31.7
     -2   -9.1  -14.3  -17.5  -20.0  -22.0  -23.6  -25.1  -26.4  -27.5  -28.6  -29.6  -30.4  -31.3  -32.1  -32.8  -33.5  -34.2  -34.8  -35.4  -36.0  -36.5  -37.1  -37.6
     -6  -13.7  -19.0  -22.4  -25.0  -27.1  -28.8  -30.4  -31.7  -32.9  -34.0  -35.0  -36.0  -36.8  -37.7  -38.4  -39.2  -39.9  -40.5  -41.2  -41.8  -42.3  -42.9  -43.4
    -10  -18.2  -23.8  -27.4  -30.0  -32.2  -34.0  -35.6  -37.0  -38.3  -39.4  -40.5  -41.5  -42.4  -43.3  -44.1  -44.8  -45.6  -46.2  -46.9  -47.5  -48.1  -48.7  -49.3
    -14  -22.7  -28.6  -32.3  -35.1  -37.3  -39.2  -40.9  -42.4  -43.7  -44.9  -46.0  -47.0  -48.0  -48.9  -49.7  -50.5  -51.3  -52.0  -52.7  -53.3  -53.9  -54.5  -55.1
    -18  -27.2  -33.3  -37.2  -40.1  -42.5  -44.4  -46.2  -47.7  -49.1  -50.3  -51.5  -52.5  -53.5  -54.5  -55.3  -56.2  -56.9  -57.7  -58.4  -59.1  -59.7  -60.4  -61.0
    -22  -31.8  -38.1  -42.1  -45.1  -47.6  -49.6  -51.4  -53.0  -54.4  -55.7  -56.9  -58.0  -59.1  -60.0  -61.0  -61.8  -62.6  -63.4  -64.2  -64.9  -65.6  -66.2  -66.8
    -26  -36.3  -42.8  -47.0  -50.2  -52.7  -54.8  -56.7  -58.3  -59.8  -61.2  -62.4  -63.6  -64.6  -65.6  -66.6  -67.5  -68.3  -69.1  -69.9  -70.6  -71.4  -72.0  -72.7
    -30  -40.8  -47.6  -51.9  -55.2  -57.8  -60.0  -62.0  -63.7  -65.2  -66.6  -67.9  -69.1  -70.2  -71.2  -72.2  -73.1  -74.0  -74.9  -75.7  -76.4  -77.2  -77.9  -78.5
    -34  -45.3  -52.4  -56.9  -60.2  -62.9  -65.2  -67.2  -69.0  -70.6  -72.0  -73.4  -74.6  -75.8  -76.8  -77.9  -78.8  -79.7  -80.6  -81.4  -82.2  -83.0  -83.7  -84.4
    -38  -49.9  -57.1  -61.8  -65.3  -68.1  -70.4  -72.5  -74.3  -76.0  -77.5  -78.9  -80.1  -81.3  -82.4  -83.5  -84.5  -85.4  -86.3  -87.2  -88.0  -88.8  -89.5  -90.2
    -42  -54.4  -61.9  -66.7  -70.3  -73.2  -75.6  -77.8  -79.7  -81.4  -82.9  -84.3  -85.6  -86.9  -88.0  -89.1  -90.1  -91.1  -92.0  -92.9  -93.8  -94.6  -95.4  -96.1
    -46  -58.9  -66.7  -71.6  -75.3  -78.3  -80.8  -83.0  -85.0  -86.7  -88.3  -89.8  -91.2  -92.4  -93.6  -94.7  -95.8  -96.8  -97.8  -98.7  -99.5 -100.4 -101.2 -102.0
    -50  -63.4  -71.4  -76.5  -80.3  -83.4  -86.0  -88.3  -90.3  -92.1  -93.8  -95.3  -96.7  -98.0  -99.2 -100.4 -101.5 -102.5 -103.5 -104.4 -105.3 -106.2 -107.0 -107.8
*************************
```

Problem #4
60 Points

4. Deborah

Program Name: Deborah.java **Input File: deborah.dat**

Test Input File:

```
10
5
catvideos 1 2
scarf.mov tim.mov
scarf.mov 1 0

tim.mov 0 0

hamlet.txt 1 0

english 0 1
hamlet.txt
5
d 1 1
e
b 1 1
c
c 0 1
d
a 0 1
b
e 0 0

7
ifnyqbvsxet 1 1
obprx
dnzrexu 1 0

obprx 1 0

nxwjyxlweefe 0 2
ppelkszy dnzrexu
ppelkszy 0 0

wqumhuv 1 0

nvjwxloxsmfi 1 2
ifnyqbvsxet
wqumhuv
19
pxrywzrewzx 1 0

sfvohb 0 1
dgaunfwlb
dgaunfwlb 1 0

ivowivcq 0 4
uvhpxkuls jijphju
nzicpafkp
ozsalttzoxw
ctfohua 0 0

oakpaqqbq 1 3
sfvohb ctfohua
ivowivcq
knwmqho 1 1
oakpaqqbq
cukdhtwbpbsi 1 0

gelsciivl 0 1
cukdhtwbpbsi
uvhpxkuls 0 3
gelsciivl
pxrywzrewzx
jxphmpyajqhp
ozsalttzoxw 0 0

zrdnq 1 1
qpoqynlsghz
jijphju 1 0

xeayw 0 1
knwmqho
qpoqynlsghz 1 0

nzicpafkp 1 0

jxphmpyajqhp 1 0

wntrbtp 1 1
zrdnq
rzijdwj 1 0

19
uvgyaqghe 1 1
hjbyl
xytyah 1 1
hgpeojljuzol
sdrbxqlelpqf 1 0

rbeqotyfa 0 0

hyvyvahsitfl 0 1
ukyqvhe
lfbberdb 0 1
ozkxrutmcf
gxvmaggfgwdb 0 0

lehvbbqhn 1 2
qtwwcprne mwpdjt
cbftqgielb 0 0

ikmwhqekq 1 0

mwpdjt 1 1
hyvyvahsitfl
hjbyl 0 1
iruqvnr
piavhzqfflmf 1 0

iruqvnr 0 1
epvouxlc
ozkxrutmcf 0 2
xytyah cbftqgielb
ukyqvhe 1 0

hgpeojljuzol 0 2
ikmwhqekq
rbeqotyfa
qtwwcprne 0 1
gxvmaggfgwdb
epvouxlc 0 0

43
bdkmogmam 0 0

amxqlmceej 1 0

kizmhmdql 1 0

bhpariivm 0 3
wmocvtraxit
zsleeub
euprkquqsae
orcrelupr 1 1
kizmhmdql
emegyyjkok 1 0

rfdzrvdqjgi 0 2
emegyyjkok
amxqlmceej
sdqnxoq 1 0

bujpahorvg 0 0

kjrbf 1 0

acrmjrx 1 2
uctuwayci
xqenyrihmxcv
raszzs 0 1
bgvhzvwlk
uifzo 0 1
shmznww
nevymrs 0 0

adhspt 1 0

wvmrsxmthaup 1 3
xdmomidpvbfv
yiewmuihh qucldvh
mjtpa 0 4
akhkcvjapc
kmzcnokw ezfzjaky
srcrcdp
qeteszzexczm 0 1
pabeyftyyij
xqenyrihmxcv 0 0

xdmomidpvbfv 1 3
bcjbbotw
bujpahorvg uifzo
jqtvjvwrzy 1 0

pabeyftyyij 1 0

lzmmsjwepth 1 2
jqtvjvwrzy acrmjrx
bgvhzvwlk 1 1
ujsjhqyjaz
wmocvtraxit 1 3
wvmrsxmthaup
yzpjxacopdqx ddpvc
kmzcnokw 1 0

zsleeub 0 2
kjrbf qmichuw
akhkcvjapc 1 0

tkcafbxm 1 1
xiyoiiecdr
yzpjxacopdqx 1 0

ddpvc 0 0

ezfzjaky 0 0

bcjbbotw 1 0

ujsjhqyjaz 0 0

shmznww 1 0

qmichuw 0 0

uctuwayci 0 0

yhjdkonmej 0 1
adhspt
xiyoiiecdr 1 0

euprkquqsae 1 2
tkcafbxm
rfdzrvdqjgi
srcrcdp 0 0

qucldvh 1 0

yiewmuihh 0 4
nevymrs
lzmmsjwepth
sdqnxoq raszzs
40
mvfozxnxqg 0 0

cvtfiz 0 1
naejbzty
fuekqgqfkt 1 1
twnavnwd
pbfktrycco 1 1
hpcwndrifmd
kezjpoq 1 0

ggvrnqhan 1 0

yghatcecyaed 1 0

hycwhzlxac 1 0

erdcz 0 1
hycwhzlxac
ictcommbbna 1 0

vwneeqor 0 1
igdjw
rjzmpx 1 0

zyjpikm 1 1
```

```
ggvrnqhan
rziaimmgrqf 0 0

ykmprmsmqmj 1 3
erdcz ictcommbbna
nynumjz
gzxrxlvunmsk 0 0

nynumjz 0 2
ravzl qyeqgvr
zfjdigbtbrmq 0 3
eeqwtlcp
fuekqgqfkt
vwneeqor
eeqwtlcp 0 0

ucpajdyaxy 1 2
gzxrxlvunmsk
pbfktrycco
erlsza 0 0

sbmsba 1 1
wqubdcpsenc
igdjw 1 0

qujrzeqk 0 0

guenin 0 2
rjzmpx cvtfiz
ravzl 0 3
yghatcecyaed
kezjpoq jzrgia
twnavnwd 1 0

qyeqgvr 1 1
jnhrmepzc
jnhrmepzc 0 2
sudyxlulhsbu
rziaimmgrqf
jzrgia 1 1
mvfozxnxqg
ypkuvmm 0 0

yhalbau 1 0

wqubdcpsenc 1 3
ambqo qujrzeqk
ypkuvmm
naejbzty 0 0

mwnsvmvxexw 0 3
yhalbau guenin
zyjpikm
bhsjqcvjvd 0 3
mwnsvmvxexw
ucpajdyaxy
zfjdigbtbrmq
etnwuys 0 1
erlsza
ambqo 1 0

sudyxlulhsbu 0 0

hpcwndrifmd 0 0
```

```
24
jgeuchmilpbn 0 0

nxjfonqpu 0 0

tdmbrto 1 0

ypbfjq 0 3
oqmnum
rjodazqnylwv
puddqdb
mfhtkx 0 1
afntiovb
pidwyrtlwy 1 1
xrvnvwddnw
afntiovb 0 0

clowvwhkjwyd 1 1
dravehd
kkmkezlcpco 0 0

xrvnvwddnw 0 2
veayndoanzws
mtcezapmrpp
ijmubchsbt 1 0

pkzbw 1 1
ijmubchsbt
uvtfnjaa 0 0

puddqdb 1 3
fffqxv
jgeuchmilpbn pkzbw
pmcmzmidtt 1 0

qzvhkrame 1 0

kooorcoec 1 2
mfhtkx pmcmzmidtt
rjodazqnylwv 0 0

mtcezapmrpp 1 0

dravehd 1 1
qzvhkrame
fffqxv 1 2
xiqvdksfxlqc
uvtfnjaa
xiqvdksfxlqc 1 0

veayndoanzws 0 0

oqmnum 0 1
tdmbrto
18
ywazedu 0 2
zavfwaztzp
hjwdtcrsyvnf
ntqapxtyzf 1 1
ztpvon
rcvkvc 0 0

cktutihvj 0 0

ielgklkphcc 0 3
```

```
rcvkvc tndymd
ywazedu
ztpvon 0 0

qcmjpxfkj 0 2
ildffvu exirdh
jhrvwxo 0 0

ildffvu 0 1
xkmtsnmx
poasdwl 0 0

gaigljvxek 0 0

irmqx 1 0

dpldlssmkjf 1 0

zavfwaztzp 0 1
poasdwl
tndymd 1 0

xkmtsnmx 0 1
gaigljvxek
exirdh 1 1
irmqx
hjwdtcrsyvnf 0 1
jhrvwxo
49
asstdhsr 0 1
hwlqmript
ftzbxxplex 0 1
pguzubtqynwr
zjunowyhfx 0 1
mznyhfntv
aaadhibfic 0 1
fqgwfdasf
llrdjkxrxlcj 0 1
rskaiji
rskaiji 1 1
asstdhsr
aegclrh 0 1
osrlseoq
bqqoybascd 1 1
vusgfpvvxfn
dkajyjsqdrce 0 1
hquutpg
djzbuv 1 1
zjunowyhfx
wtmoyzydi 0 1
xfwedh
xazcnmzs 0 1
czhofqb
lucfhet 0 1
zssrjlpfnr
bkoesigfg 1 1
csykxlmgxbx
edlslrhvlrt 0 0

essabpzoh 0 1
ybueeq
vusgfpvvxfn 0 1
edlslrhvlrt
xlddsyrjprg 0 1
kwrlpm
```

```
zjyqmegjjj 0 1
aegclrh
srjofnpuna 0 1
isypzthyxb
jqbdsxiagjj 1 1
zhuiebvi
fqgwfdasf 0 1
xlddsyrjprg
hquutpg 1 1
srjofnpuna
lrxidubi 1 1
npkfsseur
hwlqmript 1 1
lrxidubi
qmfupeg 0 1
bqqoybascd
qleeuxjnrph 0 1
llrdjkxrxlcj
ybueeq 0 1
wqjvvs
kwrlpm 1 1
axjsag
axjsag 0 1
vjnovgwqeg
pguzubtqynwr 0 1
djzbuv
evgxlxvommpj 1 1
fbijjnwix
xfwedh 0 1
aaadhibfic
osrlseoq 1 1
qmfupeg
rzmjvnirmd 1 1
bkoesigfg
zssrjlpfnr 1 1
zjyqmegjjj
tvopwjn 1 1
xazcnmzs
npkfsseur 0 1
qkeckd
opueih 0 1
wtmoyzydi
qkeckd 0 1
rzmjvnirmd
fbijjnwix 1 1
tvopwjn
csykxlmgxbx 1 1
jqbdsxiagjj
czhofqb 0 1
lucfhet
ajdnopljicf 0 1
essabpzoh
isypzthyxb 1 1
qleeuxjnrph
mznyhfntv 1 1
opueih
vjnovgwqeg 0 1
ajdnopljicf
zhuiebvi 1 1
ftzbxxplex
wqjvvs 1 1
evgxlxvommpj
```

Deborah - Test Output To Screen:

```
hamlet.txt (1)
d (3)
obprx (2)
cukdhtwbpbsi (6)
ikmwhqekq (4)
acrmjrx (5)
ggvrnqhan (3)
ijmubchsbt (3)
irmqx (2)
bqqoybascd (46)
```

Problem #5
60 Points

5. Gregory

Program Name: Gregory.java **Input File: gregory.dat**

Test Input File:

```
EARIOTNSLCUDPMHGBFYWKVXZJQ
`~!@#$%^&*()-_=+[{]}\|;:'"<.>/?
123456,password,123456789,12345678,12345,111111,1234567,sunshine,qwerty,ilove
you
princess,admin,welcome,666666,abc123,football,123123,monkey,654321,!@#$%^&*
charlie,aa123456,donald,password1,qwerty123,zxcvbnm,121212,bailey,freedom,sha
dow
passw0rd,baseball,buster,daniel,hannah,thomas,summer,george,harley,222222
jessica,ginger,letmein,abcdef,solo,jordan,55555,tigger,joshua,pepper
sophie,1234,robert,matthew,12341234,andrew,lakers,andrea,1qaz2wsx,starwars
ferrari,cheese,computer,corvette,mercedes,blahblah,maverick,hello,nicole,hunt
er
1989,amanda,1990,jennifer,banana,chelsea,ranger,1991,trustno1,merlin
cookie,ashley,bandit,killer,aaaaaa,1q2w3e,zaq1zaq1,test,hockey,dallas
whatever,admin123,asdf-123,liverpool,querty,william,soccer,london,1992,biteme
password
Qwerty123
pass1234
fgh123$
0circleS
UiL+2019
u20-IL_19
Sssssss0
N000000s
Pass12345!
Abcdefg0
jfm2amj0^jas1ond9
UIL+2019
B000000s
RS01st23
aBCDEFG0
_it'sHard4me2
biteme.19?
biteme
DoU@L0veMe?
123456
123456.7x
192837.4x
adsf-123
(uil2019)
!abc/123
PASSWORD
8a>Z&B<Q3#
UrS0{VrY*WrOnG}
```

(continued next page)

Gregory - Test Output To Screen:

```
password:0:UNACCEPTABLE
Qwerty123:0:UNACCEPTABLE
pass1234:0:UNACCEPTABLE
fgh123$:0:UNACCEPTABLE
0circleS:13:WEAK
TiGGer:0:UNACCEPTABLE
UiL+2019:27:FAIR
UiL+20[19]:43:GOOD
u20-IL_19:34:GOOD
Sssssss0:8:WEAK
N000000s:13:WEAK
Pass12345!:16:FAIR
Abcdefg0:-4:UNACCEPTABLE
jfm2amj0^jas1ond9:63:STRONG
UIL+2019:18:FAIR
B000000s:14:WEAK
RS01st23:18:FAIR
aBCDEFG0:-4:UNACCEPTABLE
_it'sHard4me2:52:STRONG
biteme.19?:28:FAIR
biteme:0:UNACCEPTABLE
DoU@L0veMe?:47:STRONG
123456:0:UNACCEPTABLE
123456.7x:7:WEAK
192837.4x:27:FAIR
adsf-123:0:UNACCEPTABLE
(uil2019):25:FAIR
!abc/123:12:WEAK
PASSWORD:0:UNACCEPTABLE
8a>Z&B<Q3#:50:STRONG
UrS0{VrY*WrOnG}:73:STRONG
```

Problem #6
60 Points

6. Jordan

Program Name: Jordan.java **Input File: jordan.dat**

Test Input File:

```
6
4 A 3B
4 A FF
1 3 12B3
3 B B94G3
F 1B 3D3D8307B214008
F 1B 531G9BGB4D92EC1
```

Test Output To Screen:

```
6
F7 17G
C61 12GF
26
337DA0089DA6AG8 531G9BGB4D92EC1
81
```

Problem #7
60 Points

7. Kavya

Program Name: Kavya.java Input File: kavya.dat

Note: Next to last data set occupies three lines, beginning with "aaa", ending "FF", likewise with output, beginning "AAA", ending "RNH"

Test Input File:

```
Yes, we finally made it to Regionals!
Why do you think sorting seems to be so important in Computer Science?
This was not as hard of a problem as it seems to be.
One to three one one to to three three four four, five. Day's of fun.
Computer Science is the best
aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaabbbbbbbbbb
bbbbbbbbbbbbbbbbbbbbbbbbccccccccccccccccccccccccccccccddddddddddddddddddddddd
ddeeeeeeeeeeeeeeeeeeeeeeeeeeeeeee.,FF
last attempt
```

Test Output To Screen:

```
EEEEIIIAAALLLYYSSNNTTOOWFMDRG
OOOOOOOTTTTTTEEEEEEIIIIINNNNNSSSSSRRRMMMCCCHHYYUUPPWDKGBA
SSSSSSAAAAATTTTOOOOEEEEHHIIRRBBMMWNDFPL
EEEEEEEEEEOOOOOOOOOOTTTTTTRRRRRFFFFFNNNNHHHUUUIVDAYS
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAEEEEEEEEEE
EEEEEEEEEEEEEEEEEEEEEEEEEEBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBCCCCCCCCCCCCCCCC
CCCCCCCCCCCCCCCCCDDDDDDDDDDDDDDDDDDDDDDDDDTTTSSSIIFFOMPURNH
TTTAALSEMP
```

Problem #8
60 Points

8. Lucie

Program Name: Lucie.java Input File: lucie.dat

Test Input File:

```
5
3,4
60,55,60,60
55,45,0,60
0,50,55,60
5,3
50,60,55
60,0,50
0,50,60
55,45,60
50,60,0
2,2
60,60
55,50
12,9
40,30,60,20,20,55,15,10,15
60,5,45,10,40,15,25,50,60
15,45,5,0,60,25,25,20,25
5,15,25,50,40,20,15,55,50
55,35,5,5,30,60,5,45,20
5,55,35,60,10,10,60,5,5
15,45,45,25,35,30,50,35,55
10,15,20,40,20,10,10,30,60
5,60,40,35,35,40,0,60,50
45,45,10,50,5,10,60,50,10
15,25,10,55,40,50,35,30,55
10,30,60,40,25,10,25,10,45
12,50
30,0,30,20,10,20,5,20,15,30,15,60,10,60,55,45,30,5,60,20,10,35,30,40,5,40,10,45,20,20,60,15,5,40,25,0,35,55,10,15,0,40,55,30,25,35,25,50,15,25
20,40,35,50,10,15,30,0,0,45,35,0,5,20,50,0,5,30,15,20,55,0,25,55,50,30,55,60,25,55,15,5,5,5,40,5,40,35,25,55,20,25,0,30,45,35,5,35,30,35
45,25,15,20,40,60,0,10,30,10,55,50,50,60,5,30,0,40,40,0,60,55,30,50,50,40,0,35,30,30,35,50,20,50,15,10,15,35,5,25,25,25,10,0,25,10,50,20,60,0
50,55,55,20,55,55,10,45,60,0,10,55,45,60,20,50,15,5,40,20,45,20,10,30,55,60,40,45,40,25,10,30,50,60,35,5,60,55,60,60,60,40,55,0,35,30,50,30,5,60
0,45,30,25,10,45,45,25,5,50,0,5,10,30,5,40,35,50,50,55,15,0,50,40,5,0,20,30,30,45,45,10,10,10,10,20,0,20,40,0,5,40,15,15,50,30,40,35,30,5
60,35,20,15,50,40,10,20,25,50,60,30,35,20,10,10,0,50,5,40,50,35,5,0,40,10,45,50,35,30,30,30,10,60,60,60,5,45,15,45,60,60,55,0,20,40,10,40,35,55
10,45,15,5,25,15,45,50,15,5,30,50,25,60,45,15,25,40,55,5,35,0,25,20,40,30,5,30,35,15,40,30,50,25,15,25,20,15,55,25,10,10,15,5,0,55,55,35,50,0
20,60,30,15,5,60,40,10,60,60,0,0,15,55,0,45,15,5,0,15,35,15,5,45,50,40,20,20,45,60,10,20,60,35,35,20,35,35,35,40,50,15,50,60,45,60,40,60,0,25
25,15,15,50,35,25,55,55,10,25,40,15,50,35,10,10,10,30,15,40,45,25,10,20,0,35,25,25,45,15,60,40,30,40,55,15,5,55,60,30,40,40,30,60,15,60,25,0,30,55
45,55,25,20,35,0,55,40,60,25,10,35,25,35,10,60,60,0,30,20,5,55,50,45,0,30,60,40,10,50,55,45,25,25,0,40,40,25,15,40,30,40,55,55,25,0,10,55,50,5
55,30,15,5,25,0,0,25,35,10,50,45,55,55,40,10,60,30,35,40,20,55,60,30,5,5,45,30,20,0,30,35,45,45,0,25,5,25,10,50,0,60,20,55,30,35,45,55,25,45
5,10,20,20,60,40,55,55,40,15,20,0,55,55,15,15,5,10,15,10,55,45,40,35,15,30,15,25,55,15,45,30,40,55,30,35,40,60,25,5,35,35,5,55,35,20,40,55,40,25
```

Test Output To Screen:

```
60,55,0,115
55,45,50,150
60,0,55,115
60,60,60,180
235,160,165
************
50,60,0,55,50,215
60,0,50,45,60,215
55,50,60,60,0,225
165,110,110,160,110
************
60,55,115
60,50,110
120,105
************
40,60,15,5,55,5,15,10,5,45,15,10,280
30,5,45,15,35,55,45,15,60,45,25,30,405
60,45,5,25,5,35,45,20,40,10,10,60,360
20,10,0,50,5,60,25,40,35,50,55,40,390
20,40,60,40,30,10,35,20,35,5,40,25,360
55,15,25,20,60,10,30,10,40,10,50,10,335
15,25,25,15,5,60,50,10,0,60,35,25,325
10,50,20,55,45,5,35,30,60,50,30,10,400
15,60,25,50,20,5,55,60,50,10,55,45,450
265,310,220,275,260,245,335,215,325,285,315,255
************
30,20,45,50,0,60,10,20,25,45,55,5,365
0,40,25,55,45,35,45,60,15,55,30,10,415
30,35,15,55,30,20,15,30,15,25,15,20,305
20,50,20,20,25,15,5,15,50,20,5,20,265
10,10,40,55,10,50,25,5,35,35,25,60,360
20,15,60,55,45,40,15,60,25,0,0,40,375
5,30,0,10,45,10,45,40,55,55,0,55,350
20,0,10,45,25,20,50,10,55,40,25,55,355
15,0,30,60,5,25,15,60,10,60,35,40,355
30,45,10,0,50,50,5,60,25,25,10,15,325
15,35,55,10,0,60,30,0,40,10,50,20,325
60,0,50,55,5,30,50,0,15,35,45,0,345
10,5,50,45,10,35,25,15,50,25,55,55,380
60,20,60,60,30,20,60,55,35,35,55,55,545
55,50,5,20,5,10,45,0,10,10,40,15,265
45,0,30,50,40,10,15,45,10,60,10,15,330
30,5,0,15,35,0,25,15,10,60,60,5,260
5,30,40,5,50,50,40,5,30,0,30,10,295
60,15,40,40,50,5,55,0,15,30,35,15,360
20,20,0,20,55,40,5,15,40,20,40,10,285
10,55,60,45,15,50,35,35,45,5,20,55,430
35,0,55,20,0,35,0,15,25,55,55,45,340
30,25,30,10,50,5,25,5,10,50,60,40,340
40,55,50,30,40,0,20,45,20,45,30,35,410
5,50,50,55,5,40,40,50,0,0,5,15,315
40,30,40,60,0,10,30,40,35,30,5,30,350
10,55,0,40,20,45,5,20,25,60,45,15,340
45,60,35,45,30,50,30,20,25,40,30,25,435
20,25,30,40,30,35,35,45,45,10,20,55,390
20,55,30,25,45,30,15,60,15,50,0,15,360
60,15,35,10,45,30,40,10,60,55,30,45,435
15,5,50,30,10,30,30,20,40,45,35,30,340
5,5,20,50,10,10,50,60,30,25,45,40,350
40,5,50,60,10,60,25,35,40,25,45,55,450
25,40,15,35,10,60,15,35,55,0,0,30,320
0,5,10,5,20,60,25,20,15,40,25,35,260
35,40,15,60,0,5,20,35,5,40,5,40,300
55,35,35,55,20,45,15,35,55,25,25,60,460
10,25,5,60,40,15,55,35,60,15,10,25,355
15,55,25,60,0,45,25,40,30,40,50,5,390
0,20,25,60,5,60,10,50,40,30,0,35,335
40,25,25,40,40,60,10,15,40,40,60,35,430
55,0,10,55,15,55,15,50,30,55,20,5,365
30,30,0,0,15,0,5,60,60,55,55,55,365
25,45,25,35,50,20,0,45,15,25,30,35,350
35,35,10,30,30,40,55,60,60,0,35,20,410
25,5,50,50,40,10,55,40,25,10,45,40,395
50,35,20,30,35,40,35,60,0,55,55,55,470
15,30,60,5,30,35,50,0,30,50,25,40,370
25,35,0,60,5,55,0,25,55,5,45,25,335
1355,1325,1450,1885,1225,1620,1350,1575,1555,1625,1530,1560
************
```

Problem #9
60 Points

9. Mateusz

Program Name: Mateusz.java **Input File: mateusz.dat**

Test Input File:

```
9
2
0 0 3 3
2 2 3 3
1
0 0 1 1
2
0 0 1000000 1000000
100 100 1 1
3
0 0 1 1
10 10 1 1
-10 -10 1 1
9
-19 -1 20 20
-10 -1 20 20
-1 -1 20 20
-19 -10 20 20
-10 -10 20 20
0 -10 20 20
-19 -19 20 20
-10 -19 20 20
-1 -19 20 20
6
0 0 3 3
2 2 3 3
10 10 3 3
12 12 3 3
20 20 3 3
22 22 3 3
3
0 0 10 5
5 -2 2 6
6 3 7 4
4
0 0 10 5
5 -2 2 6
6 3 7 4
-4 -6 32 51
12
-16 -16 32 32
-32 -32 64 64
-64 -64 128 128
-128 -128 256 256
-256 -256 512 512
-512 -512 1024 1024
-1024 -1024 2048 2048
-2048 -2048 4096 4096
-4096 -4096 8192 8192
-8192 -8192 16384 16384
-16384 -16384 32768 32768
-32768 -32768 65536 65536
```

Test Output To Screen:

```
Case #1: The total area is 17.
Case #2: The total area is 1.
Case #3: The total area is 1000000000000.
Case #4: The total area is 3.
Case #5: The total area is 1464.
Case #6: The total area is 51.
Case #7: The total area is 74.
Case #8: The total area is 1632.
Case #9: The total area is 4294967296.
```

Problem #10
60 Points

10. Nishi

Program Name: Nishi.java **Input File: nishi.dat**

Test Input File:

```
13
3.566 X 1.5
30.0 X 8.973
140 / 19.2654
1500.0600 X 35000.00005
6874 X 5
-0.00093 / 0.000058
3.0 / 0.0002857
3.00 / 0.0002857
256.123 X 18.78921
6.0 X -7.0
20.0 X 5000.0
30.0 X 8.987
-0.00093 / 0.000056
```

Test Output To Screen:

```
5.3E0
2.69E2
7.3E0
5.2502100E7
3E4
-1.6E1
1.1E4
1.05E4
4.81235E3
-4.2E1
1.00E5
2.70E2
-1.7E1
```

Problem #11
60 Points

11. Rosa

Program Name: Rosa.java **Input File: rosa.dat**

Test Input File:

```
3
One
FILE 1
One,two,three
4,bob,can
7,house,short
8,goof,short
3,three,good
EOF
FILE 2
One,two,three
4,bob,can
7,course,crank
9,hobbit,googball
EOF
H2
FILE A
H1,H2,H3
Airhead,A,Can
Dog,D,Here
UIL,U,Bob
EOF
FILE B
H1,H2,H3
Dog,D,Here
Airhead,A,Hook
UIL,U,Canister
Wha,W,Waycar
Habbit,H,Honolulu
EOF
C
FILE C
A,B,C
1,B,D
1,H,S
1,G,T
1,T,G
EOF
FILE D
A,B,C
1,B,D
1,C,S
1,H,G
EOF
```

Test Output To Screen:

```
FILE 1 Missing from FILE 2
3,three,good
8,goof,short
FILE 2 Missing from FILE 1
9,hobbit,googball
Difference between Files
7,house,short
7,course,crank
FILE A Missing from FILE B
FILE B Missing from FILE A
Habbit,H,Honolulu
Wha,W,Waycar
Difference between Files
Airhead,A,Can
Airhead,A,Hook
UIL,U,Bob
UIL,U,Canister
FILE C Missing from FILE D
1,G,T
FILE D Missing from FILE C
Difference between Files
1,T,G
1,H,G
1,H,S
1,C,S
```

Problem #12
60 Points

12. Vova

Program Name: Vova.java **Input File: vova.dat**

Test Input File:

```
50
1 2 7 6 12
2 0 -2 0 3
-1 -1 1 1 4
51978234 40205786 95533502 68243376 16035375479104 38
52140431 85725575 -10170934 -50008289 6189119275683636
71086346 -41425311 34658995 74097166 227744939
-49275884 -88963268 77880635 -80729884 6057747190265319
-58600972 -55410500 28041861 59661887 399028481
73623111 12415157 16404125 -57173020 68148831
-15338625 34063894 69414277 -95733418 7596701139035506
19585322 -36916990 -23084412 1253939 117987338
5086908 -3367753 -17184364 40452020 116421709
73692731 47556288 -93614793 -3244901 96578456
28938251 84311427 -15149916 59081579 1228307488225109
-41044031 -38316646 60770658 -31328954 215147586
-86935610 38084497 84801184 79374367 275419846
32471799 -47701118 753579 -98066001 8092983533389099
3747367 -993323 -75466214 70037411 97955800
78150298 -90454607 36094801 40138061 4095563789832664
-21782053 -28712361 -66316625 46963893 5488923914409041
41201081 71647618 66172591 65520526 9823317631260696
62767395 -7691210 -55631771 -18302047 5749292921500183
-93392278 -3137576 -35742132 -4191263 4213261588542034
83963304 45834224 -21917049 -4911458 2636491074944131
-51777701 -90341847 -11602228 28436963 24103273995231 59
78742422 90807347 3498651 -64673514 4756140468277483
68670110 -51283312 -52000320 -94356410 9266234009517956
-33108296 -80270126 63989021 -23388205 251829488
15438573 -44786597 12611682 99004187 206322975
-29396797 50669628 95559109 -65051102 6364924254103557
94774875 -4513 28589646 9458722 436544
71771732 77103052 -27075788 -36387197 160866915
-11556894 -22488367 -57407671 -78057584 40112617
23054445 -24786578 79240434 73028126 5214438478426726
11105817 77326697 5363121 32999764 3310802457445589
-85540936 4198768 -36834378 -24852020 2273046695357846
-45997879 95278282 38278516 86470676 117085798
-14093267 -63026199 -47014003 79275190 7770233975757991
23910250 -56954977 -1141033 86806652 162374098369342
-43295643 -34917977 -78450927 -38144467 6430393376278084
-37828997 39238021 11730881 14897733 3089912325940032
29698542 -70216611 -69521090 -48738997 22999668
68733993 -74687263 25189139 -22374357 6357418844508280
78629379 -10002261 76077283 -12455235 8411637210649033
76061901 10680641 -54114378 -51732993 4227232365021512
48274598 76831822 -47418031 -76426295 3662962522151446
33793007 46583919 7469980 -28705319 8950612672824101
99491335 -99605039 44150853 -36413706 230786627
-20995556 -9179057 34288117 -16960869 87581165
-82844647 56668989 -95816966 96779172 81791487
```

Test Output To Screen:

```
Case #1: YES
Case #2: NO
Case #3: YES
Case #4: YES
Case #5: NO
Case #6: NO
Case #7: YES
Case #8: NO
Case #9: NO
Case #10: YES
Case #11: NO
Case #12: YES
Case #13: NO
Case #14: YES
Case #15: NO
Case #16: YES
Case #17: YES
Case #18: NO
Case #19: NO
Case #20: NO
Case #21: YES
Case #22: YES
Case #23: NO
Case #24: YES
Case #25: YES
Case #26: NO
Case #27: YES
Case #28: YES
Case #29: YES
Case #30: NO
Case #31: NO
Case #32: NO
Case #33: NO
Case #34: NO
Case #35: YES
Case #36: YES
Case #37: NO
Case #38: YES
Case #39: YES
Case #40: YES
Case #41: YES
Case #42: NO
Case #43: YES
Case #44: NO
Case #45: NO
Case #46: YES
Case #47: YES
Case #48: YES
Case #49: YES
Case #50: NO
```