

FLORIDA HIGH SCHOOLS COMPUTING COMPETITION '92
JUDGING CRITERIA

1.1 RUN PROGRAM:

```
OUTPUT: GGGGG   TTTTT   EEEEE
        G       T       E
        G GGG   T       EEEEE   DATA SERVICES
        G  G    T       E
        GGGGG   T       EEEEE
```

1.2 INPUT: Enter year: 1992

OUTPUT: GTE CORPORATION

INPUT: Enter year: 1919

OUTPUT: RICHLAND CENTER TELEPHONE COMPANY

INPUT: Enter year: 1926

OUTPUT: ASSOCIATED TELEPHONE UTILITIES COMPANY

1.3 INPUT: Enter 1991 rank: 7

Enter number of places: 6

OUTPUT: 1

INPUT: Enter 1991 rank: 50

Enter number of places: 21

OUTPUT: 29

1.4 INPUT: Enter number of spaces: 4

```
OUTPUT: GTE TELEPHONE OPERATIONS
        GTE GOVERNMENT SYSTEMS
        GTE MOBILE COMMUNICATIONS
        GTE INFORMATION SERVICES
        GTE SPACENET
        GTE AIRFONE
```

INPUT: Enter number of spaces: 1

```
OUTPUT: GTE TELEPHONE OPERATIONS
        GTE GOVERNMENT SYSTEMS
        GTE MOBILE COMMUNICATIONS
        GTE INFORMATION SERVICES
        GTE SPACENET
        GTE AIRFONE
```

1.5 INPUT: Enter M, Y: 11, 1982

OUTPUT: 15 YEARS

INPUT: Enter M, Y: 8, 1990

OUTPUT: 22 YEARS

1.6 INPUT: Enter title: V.P.
Enter name: BOESCHENSTEIN

OUTPUT: *****
* *
* V.P. BOESCHENSTEIN *
* *

INPUT: Enter title: DIRECTOR
Enter name: WALTERS

OUTPUT: *****
* *
* DIRECTOR WALTERS *
* *

1.7 INPUT: Enter name: SCOTT
Enter title: SENIOR SYSTEMS ANALYST
Enter group: SERVICE ORDER DEVELOPMENT

OUTPUT: SCOTT IS A SENIOR SYSTEMS ANALYST WITHIN THE
SERVICE ORDER DEVELOPMENT GROUP AND
HAS BEEN SELECTED TO PARTICIPATE IN
THE ISOP.

INPUT: Enter name: MIKE
Enter title: PROJECT LEADER
Enter group: BILLING SUPPORT

OUTPUT: MIKE IS A PROJECT LEADER WITHIN THE
BILLING SUPPORT GROUP AND
HAS BEEN SELECTED TO PARTICIPATE IN
THE ISOP.

1.8 INPUT: Enter amount: **1234.56**

OUTPUT: **\$1234.56**

INPUT: Enter amount: **2345.67**

OUTPUT: **\$2000.00**

INPUT: Enter amount: **1900.00**

OUTPUT: **\$1900.00**

1.9 INPUT: Enter words: **REVENUE ACCOUNTING OFFICE**

OUTPUT: **RAO**

INPUT: Enter words: **CUSTOMER BILLING SERVICES SYSTEM**

OUTPUT: **CBSS**

1.10 INPUT: Enter number of technicians, N: **6**
Enter number of minutes, M: **10**

OUTPUT: **250 HOURS 0 MINUTES**

INPUT: Enter number of technicians, N: **10**
Enter number of minutes, M: **31**

OUTPUT: **1291 HOURS 40 MINUTES**

2.1 INPUT: Enter line: **I. SUCCESS**
Enter line: **A. OPPORTUNITY**
Enter line: **1. TEACHERS**
Enter line: **2. SCHOOL**
Enter line: **3. YOUR COUNTY**
Enter line: **B. HARD WORK**
Enter line: **1. HOURS OF PRACTICE**
Enter line: **2. SELF-MOTIVATION**
Enter line: (press the return key)

OUTPUT: **I. SUCCESS**
A. OPPORTUNITY
1. TEACHERS
2. SCHOOL
3. YOUR COUNTY
B. HARD WORK
1. HOURS OF PRACTICE
2. SELF-MOTIVATION

INPUT: Enter line: **I. SUCCESS**
Enter line: **A. VISION**
Enter line: **B. PLAN**
Enter line: **C. ACTION**
Enter line: (press the return key)

OUTPUT: **I. SUCCESS**
A. VISION
B. PLAN
C. ACTION

2.2 INPUT: Enter number: **36**

OUTPUT: **THIRTY-SIX**

INPUT: Enter number: **72**

OUTPUT: **SEVENTY-TWO**

INPUT: Enter number: **18**

OUTPUT: **EIGHTEEN**

INPUT: Enter number: **1**

OUTPUT: **ONE**

2.3 INPUT: Enter name: **MIKE**
Enter degree: **BS IN COMPUTER SCIENCE**

OUTPUT: 1. **DEMONSTRATED INTEREST IN INFORMATION MANAGEMENT.**
2. **DEMONSTRATED LEADERSHIP SKILLS.**
3. **STRONG GPA/PERFORMANCE HISTORY.**
4. **AT LEAST TWO COURSES IN ANY PROGRAMMING LANGUAGE.**
5. **INTERNSHIP OR WORK EXPERIENCE.**
6. **EFFECTIVE ORAL AND WRITTEN COMMUNICATION SKILLS.**
7. **CAREER DEVELOPMENT POTENTIAL.**

INPUT: Select up to 7 items: 314

OUTPUT: (screen is cleared)
MIKE
BS IN COMPUTER SCIENCE

1. **DEMONSTRATED INTEREST IN INFORMATION MANAGEMENT.**
2. **STRONG GPA/PERFORMANCE HISTORY.**
3. **AT LEAST TWO COURSES IN ANY PROGRAMMING LANGUAGE.**

INPUT: Enter name: **TANIA**
Enter degree: **BS IN ACCOUNTING**

OUTPUT: 1. **DEMONSTRATED INTEREST IN INFORMATION MANAGEMENT**
2. **DEMONSTRATED LEADERSHIP SKILLS.**
3. **STRONG GPA/PERFORMANCE HISTORY.**
4. **AT LEAST TWO COURSES IN ANY PROGRAMMING LANGUAGE.**
5. **INTERNSHIP OR WORK EXPERIENCE.**
6. **EFFECTIVE ORAL AND WRITTEN COMMUNICATION SKILLS.**
7. **CAREER DEVELOPMENT POTENTIAL.**

INPUT: Select up to 7 items: 761

OUTPUT: (screen is cleared)
TANIA
BS IN ACCOUNTING

1. **DEMONSTRATED INTEREST IN INFORMATION MANAGEMENT.**
2. **EFFECTIVE ORAL AND WRITTEN COMMUNICATION SKILLS.**
3. **CAREER DEVELOPMENT POTENTIAL.**

2.4 INPUT: Enter rating for speech value: **EXCELLENT**
Enter rating for preparation: **SATISFACTORY**
Enter rating for manner: **SHOULD IMPROVE**
Enter rating for organization: **EXCELLENT**
Enter rating for opening: **MUST IMPROVE**
Enter rating for body of speech: **ABOVE AVERAGE**
Enter rating for conclusion: **EXCELLENT**

OUTPUT: **SPEECH VALUE: 1**
PREPARATION: 3
MANNER: 4
ORGANIZATION: 1
OPENING: 5
BODY OF SPEECH: 2
CONCLUSION: 1

AVERAGE NUMERICAL RATING = 2.4
SPEECH RATING = ABOVE AVERAGE

INPUT: Enter rating for speech value: **MUST IMPROVE**
Enter rating for preparation: **SHOULD IMPROVE**
Enter rating for manner: **SATISFACTORY**
Enter rating for organization: **EXCELLENT**
Enter rating for opening: **MUST IMPROVE**
Enter rating for body of speech: **ABOVE AVERAGE**
Enter rating for conclusion: **MUST IMPROVE**

OUTPUT: **SPEECH VALUE: 5**
PREPARATION: 4
MANNER: 3
ORGANIZATION: 1
OPENING: 5
BODY OF SPEECH: 2
CONCLUSION: 5

AVERAGE NUMERICAL RATING = 3.6
SPEECH RATING = SHOULD IMPROVE

2.5 INPUT: Enter N: 38

OUTPUT: BE THE CUSTOMER-ORIENTED LEADER AND
PROVIDER-OF-CHOICE OF QUALITY
INFORMATION PRODUCTS AND SERVICES IN
THE TELECOMMUNICATIONS MARKETPLACE AND
SELECTED OTHER RELATED MARKETS IN
SUPPORT OF GTE'S TELOPS GOALS.

INPUT: Enter N: 24

OUTPUT: BE THE CUSTOMER-ORIENTED
LEADER AND PROVIDER-OF-
CHOICE OF QUALITY
INFORMATION PRODUCTS AND
SERVICES IN THE
TELECOMMUNICATIONS
MARKETPLACE AND SELECTED
OTHER RELATED MARKETS IN
SUPPORT OF GTE'S TELOPS
GOALS.

2.6 Note: Input and Output will wrap around the screen. Two spaces separate sentences; one space separates the other words.

INPUT: Enter paragraph: WHO WILL WIN. MY TEAM! WHY! BECAUSE
WE WILL. HOW WILL THEY WIN. WHAT ARE THE PRIZES. I DON'T KNOW?

OUTPUT: WHO WILL WIN? MY TEAM! WHY! BECAUSE WE WILL. HOW
WILL THEY WIN? WHAT ARE THE PRIZES? I DON'T KNOW?

INPUT: Enter paragraph: WHAT ARE THE RULES. WHOM DO YOU
REPRESENT. WHY DO YOU THINK YOU WILL WIN. HOW COME! WHERE WILL
YOU GO.

OUTPUT: WHAT ARE THE RULES? WHOM DO YOU REPRESENT. WHY DO
YOU THINK YOU WILL WIN? HOW COME! WHERE WILL YOU GO?

2.7 INPUT: Enter time: 1930
Enter day: FRIDAY

OUTPUT: GRANDVILLE, JAMES, MATT, TOM

INPUT: Enter time: 0700
Enter day: TUESDAY

OUTPUT: DAVID, JOHN, MARIE, PAULA, SHELLEY

INPUT: Enter time: 1130
Enter day: SATURDAY

OUTPUT: NONE

INPUT: Enter time: 2250
Enter day: MONDAY

OUTPUT: LINDA

2.8 Note: Run this program three times for each set of INPUT below, and look for random names (replacing ??? below) without duplication among the valid names: JEFF, LIZ, LORI, MARY, PING, and possibly DARLENE and WILL (for the third set of input).

INPUT: Enter author's name: WILL

OUTPUT: AUTHOR - WILL
MODERATOR - DARLENE
READER - ???
RECORDER - ???
INSPECTOR - ???

INPUT: Enter author's name: DARLENE

OUTPUT: AUTHOR - DARLENE
MODERATOR - WILL
READER - ???
RECORDER - ???
INSPECTOR - ???

INPUT: Enter author's name: JEFF

OUTPUT: AUTHOR - JEFF
MODERATOR - ??? (DARLENE or WILL only, 50% chance)
READER - ???
RECORDER - ???
INSPECTOR - ???

2.9 INPUT: Enter two area codes: 515, 519
Enter number of names: 9
Enter name: JENNIFER
Enter name: JACKIE
Enter name: BYRON
Enter name: ESTHER
Enter name: JOHN
Enter name: BONNIE
Enter name: PAM
Enter name: THERESA
Enter name: CHARLOTTE

OUTPUT: 515 - BONNIE
515 - BYRON
515 - CHARLOTTE
515 - ESTHER
515 - JACKIE
519 - JENNIFER
519 - JOHN
519 - PAM
519 - THERESA

INPUT: Enter two area codes: 805, 803
Enter number of names: 4
Enter name: MARCELLE
Enter name: RICK
Enter name: MIKE
Enter name: PAM

OUTPUT: 803 - MARCELLE
803 - MIKE
805 - PAM
805 - RICK

2.10 INPUT: Enter handicap: 13
Enter gross scores: 9,8,5,11,5,6,8,7,4

OUTPUT:	HOLE #:	1	2	3	4	5	6	7	8	9
	PAR:	5	4	4	4	3	4	4	3	5
	GROSS:	9	8	5	11	5	6	8	7	4
	ADJUST:	8	7	5	7	5	6	7	5	4

PAR TOTAL: 36
GROSS TOTAL: 63
ADJUST TOTAL: 54
ROUND HANDICAP: 18

INPUT: Enter handicap: 6
Enter gross scores: 7,3,7,6,7,8,7,6,7

OUTPUT:	HOLE #:	1	2	3	4	5	6	7	8	9
	PAR:	5	4	4	4	3	4	4	3	5
	GROSS:	7	3	7	6	7	8	7	6	7
	ADJUST:	7	3	6	6	5	6	6	4	6

PAR TOTAL: 36
GROSS TOTAL: 58
ADJUST TOTAL: 49
ROUND HANDICAP: 13

3.1 RUN PROGRAM:

OUTPUT:

```
      G
     T T
    E  E
   D    D
  SDETGTEDS
```

Note: The above figure is displayed in the approximate center of the screen.

Use the keys: I, J, K, and M to move the triangle up, left, right, and down respectively. Move the triangle along the perimeter of the screen.

Once a valid directional key is pressed the triangle continuously shifts one column (or row) in the designated direction until either: 1) another valid directional key is pressed, causing the triangle to shift in another direction, or 2) the triangle's edge is about to go past the perimeter of the screen, in which case the triangle is to remain stationary until another directional key is pressed to send it away from (or along) the perimeter.

3.2 INPUT: Enter X: 200

OUTPUT: **FRIDAY AUGUST 21**

INPUT: Enter X: 261

OUTPUT: **SATURDAY OCTOBER 31**
SUNDAY NOVEMBER 1

INPUT: Enter X: 105

OUTPUT: **SATURDAY MAY 2**
SUNDAY MAY 3

INPUT: Enter X: 100

OUTPUT: **MONDAY APRIL 27**

3.3 INPUT: Enter name, program: **MARIE,TN10**
Enter completed, release: **Y,N**

INPUT: Enter name, program: **DERRIL,TU03**
Enter completed, release: **N,Y**

OUTPUT: **MODULE TU03 HAS BEEN RELEASED**

INPUT: Enter name, program: **DERRIL,TU01**
Enter completed, release: **Y,Y**

OUTPUT: **MODULE TU01 HAS BEEN RELEASED**

INPUT: Enter name, program: **DOUG,TT00**
Enter completed, release: **N,N**

INPUT: Enter name, program: **LARRY,TT00**
Enter completed, release: **Y,Y**

INPUT: Enter name, program: **DOUG,TN10**
Enter completed, release: **Y,Y**

OUTPUT: **MODULE TN10 HAS BEEN RELEASED**

INPUT: Enter name, program: **MIKE,TT00**
Enter completed, release: **Y,Y**

INPUT: Enter name, program: **DOUG,TT00**
Enter completed, release: **N,Y**

OUTPUT: **MODULE TT00 HAS BEEN RELEASED**

3.4 INPUT: Enter phone #: **555-6625**

OUTPUT: **55K-NOCK**

INPUT: Enter phone #: **555-7283**

OUTPUT: **555-PAVE**
555-RATE
555-SAVE

INPUT: Enter phone #: **555-6229**

OUTPUT: **55L-OBBY**

3.5 RUN PROGRAM:

```
OUTPUT: 1567204 1242
         2436051 1463
         3645021 1751
         5460231 2273
         5612704 2316
         5716420 2334
         6532471 2453
```

3.6 INPUT: Enter N: 19

```
OUTPUT: 3 + 5 + 11 = 19
```

```
INPUT: Enter N: 500
```

```
OUTPUT: 2 + 5 + 493 = 500
```

```
INPUT: Enter N: 32525
```

```
OUTPUT: 3 + 13 + 32509 = 32525
```

3.7 INPUT: Enter number of substitutes: 1
Enter name: DEAN

OUTPUT: 1 ANDY, DAN, DEAN, DOUG, JACK, MIKE
2 ANDY, DAN, DEAN, DOUG, JACK, YEHIA
3 ANDY, DAN, DEAN, DOUG, MIKE, YEHIA
4 ANDY, DAN, DEAN, JACK, MIKE, YEHIA
5 ANDY, DAN, DOUG, JACK, MIKE, YEHIA
6 ANDY, DEAN, DOUG, JACK, MIKE, YEHIA
7 DAN, DEAN, DOUG, JACK, MIKE, YEHIA

INPUT: Enter number of substitutes: 2
Enter name: TONY
Enter name: DEAN

OUTPUT: 1 ANDY, DAN, DEAN, DOUG, JACK, MIKE
2 ANDY, DAN, DEAN, DOUG, JACK, TONY
3 ANDY, DAN, DEAN, DOUG, JACK, YEHIA
4 ANDY, DAN, DEAN, DOUG, MIKE, TONY
5 ANDY, DAN, DEAN, DOUG, MIKE, YEHIA
6 ANDY, DAN, DEAN, DOUG, TONY, YEHIA
7 ANDY, DAN, DEAN, JACK, MIKE, TONY
8 ANDY, DAN, DEAN, JACK, MIKE, YEHIA
9 ANDY, DAN, DEAN, JACK, TONY, YEHIA
10 ANDY, DAN, DEAN, MIKE, TONY, YEHIA
11 ANDY, DAN, DOUG, JACK, MIKE, TONY
12 ANDY, DAN, DOUG, JACK, MIKE, YEHIA
13 ANDY, DAN, DOUG, JACK, TONY, YEHIA
14 ANDY, DAN, DOUG, MIKE, TONY, YEHIA
15 ANDY, DAN, JACK, MIKE, TONY, YEHIA
16 ANDY, DEAN, DOUG, JACK, MIKE, TONY
17 ANDY, DEAN, DOUG, JACK, MIKE, YEHIA
18 ANDY, DEAN, DOUG, JACK, TONY, YEHIA
19 ANDY, DEAN, DOUG, MIKE, TONY, YEHIA
20 ANDY, DEAN, JACK, MIKE, TONY, YEHIA
21 ANDY, DOUG, JACK, MIKE, TONY, YEHIA
22 DAN, DEAN, DOUG, JACK, MIKE, TONY
23 DAN, DEAN, DOUG, JACK, MIKE, YEHIA
24 DAN, DEAN, DOUG, JACK, TONY, YEHIA
25 DAN, DEAN, DOUG, MIKE, TONY, YEHIA
26 DAN, DEAN, JACK, MIKE, TONY, YEHIA
27 DAN, DOUG, JACK, MIKE, TONY, YEHIA
28 DEAN, DOUG, JACK, MIKE, TONY, YEHIA

Note: A key will need to be pressed after the screen is filled with the first set of OUTPUT before displaying the rest of the 28 lines of OUTPUT.

Note: INPUT/OUTPUT is continued on next page for 3.7

(Judging Criteria for 3.7 Continued)

INPUT: Enter number of substitutes: 3
Enter name: SEAN
Enter name: PAUL
Enter name: ROB

OUTPUT: 1 ANDY,DAN,DOUG,JACK,MIKE,PAUL
2 ANDY,DAN,DOUG,JACK,MIKE,ROB
3 ANDY,DAN,DOUG,JACK,MIKE,SEAN
4 ANDY,DAN,DOUG,JACK,MIKE,YEHIA
5 ANDY,DAN,DOUG,JACK,PAUL,ROB
6 ANDY,DAN,DOUG,JACK,PAUL,SEAN
7 ANDY,DAN,DOUG,JACK,PAUL,YEHIA
8 ANDY,DAN,DOUG,JACK,ROB,SEAN
9 ANDY,DAN,DOUG,JACK,ROB,YEHIA
10 ANDY,DAN,DOUG,JACK,SEAN,YEHIA
11 ANDY,DAN,DOUG,MIKE,PAUL,ROB
12 ANDY,DAN,DOUG,MIKE,PAUL,SEAN
13 ANDY,DAN,DOUG,MIKE,PAUL,YEHIA
:
:
:
37 ANDY,DOUG,JACK,MIKE,PAUL,SEAN
38 ANDY,DOUG,JACK,MIKE,PAUL,YEHIA
39 ANDY,DOUG,JACK,MIKE,ROB,SEAN
40 ANDY,DOUG,JACK,MIKE,ROB,YEHIA
41 ANDY,DOUG,JACK,MIKE,SEAN,YEHIA
42 ANDY,DOUG,JACK,PAUL,ROB,SEAN
43 ANDY,DOUG,JACK,PAUL,ROB,YEHIA
44 ANDY,DOUG,JACK,PAUL,SEAN,YEHIA
45 ANDY,DOUG,JACK,ROB,SEAN,YEHIA
46 ANDY,DOUG,MIKE,PAUL,ROB,SEAN
47 ANDY,DOUG,MIKE,PAUL,ROB,YEHIA
48 ANDY,DOUG,MIKE,PAUL,SEAN,YEHIA
:
:
76 DAN,JACK,PAUL,ROB,SEAN,YEHIA
77 DAN,MIKE,PAUL,ROB,SEAN,YEHIA
78 DOUG,JACK,MIKE,PAUL,ROB,SEAN
79 DOUG,JACK,MIKE,PAUL,ROB,YEHIA
80 DOUG,JACK,MIKE,PAUL,SEAN,YEHIA
81 DOUG,JACK,MIKE,ROB,SEAN,YEHIA
82 DOUG,JACK,PAUL,ROB,SEAN,YEHIA
83 DOUG,MIKE,PAUL,ROB,SEAN,YEHIA
84 JACK,MIKE,PAUL,ROB,SEAN,YEHIA

Note: lines 14 through 36 and lines 49 through 75 are not shown. For judging purposes, spot check only those lines shown. The actual program will have 84 lines of output, allowing a key to be pressed after a screen full of lines has been displayed.

3.8 INPUT: Enter month of bill: 2
Enter cycle number: 10
Enter number of days: 15
Enter holiday MM, DD: 1, 1
Enter holiday MM, DD: 3, 17
Enter holiday MM, DD: 0, 0

OUTPUT: **BILL DATE: FRIDAY FEBRUARY 28**
DUE DATE: MONDAY MARCH 16

INPUT: Enter month of bill: 12
Enter cycle number: 3
Enter number of days: 18
Enter holiday MM, DD: 11, 26
Enter holiday MM, DD: 12, 25
Enter holiday MM, DD: 0, 0

OUTPUT: **BILL DATE: MONDAY DECEMBER 7**
DUE DATE: MONDAY DECEMBER 28

3.9 INPUT: Enter number of sides: 8
Enter movement: L3
Enter movement: U10
Enter movement: R5
Enter movement: U7
Enter movement: R3
Enter movement: D10
Enter movement: L5
Enter movement: D7

OUTPUT: **AREA = 66 SQUARE FEET**

INPUT: Enter number of sides: 10
Enter movement: R5
Enter movement: D12
Enter movement: L5
Enter movement: U2
Enter movement: L2
Enter movement: D2
Enter movement: L6
Enter movement: U5
Enter movement: R8
Enter movement: U7

OUTPUT: **AREA = 96 SQUARE FEET**

3.10 INPUT: Enter colors on top: G,B,R,B,W,B,Y,G,R
Enter colors on front: W,G,W,Y,Y,Y,Y,O,Y
Enter colors on right: G,W,B,Y,O,R,R,G,G
Enter colors on back: Y,Y,O,W,G,G,R,B,O
Enter colors on left: O,B,O,O,R,O,W,W,B
Enter colors on bottom: W,O,W,R,B,R,G,R,B

OUTPUT: NUMBER OF EDGE PIECES HAVING SAME COLOR: 4

INPUT: Enter colors on top: B,Y,B,O,G,R,R,W,O
Enter colors on front: Y,W,B,B,O,O,R,G,G
Enter colors on right: G,B,R,B,G,W,O,G,O
Enter colors on back: G,B,O,Y,R,W,Y,W,W
Enter colors on left: Y,Y,B,O,Y,G,Y,Y,W
Enter colors on bottom: G,R,W,R,B,O,R,W,R

OUTPUT: COLORS ON MIDDLE SQUARES ARE NOT UNIQUE
NUMBER OF EDGE PIECES HAVING SAME COLOR: 2