

A+ Computer Science November-December 2012 Computer Science Competition Hands-On Programming Set

Judges Packet

Number	Name
Problem 1	Baseball Bin Berry Berry Good To Me
Problem 2	Box J
Problem 3	Crazy Conversions
Problem 4	Day To Day
Problem 5	Flex J Box
Problem 6	Gender Race
Problem 7	Maze Map
Problem 8	Snapshot Day
Problem 9	Taxi
Problem 10	Test Parity
Problem 11	Weird Change
Problem 12	Y Tree

1. Baseball Bin Berry Berry Good To Me

Data File name: baseball.dat

Judges Data:

```
1 1 0 0
1 1 1 2
0 0 1 1
1 1 1 4
1 0 1 0
1 1 1 3
0 1 0 4
1 0 0 2
```

Judges Output to screen:

```
1 1 0 0
0 1 1 2
1 0 0 1
0 0 0 4
1 0 1 0
0 0 1 3
0 0 0 2
0 1 1 0
```

2. Box J

Input: None

Judges Output to screen:

```
*****  
*****  
**J**  
*****
```

3. Crazy Conversions

Data File name: conversions.dat

Judges Data:

```
3
12 4 3 1
8 4 9 3
10 5 6 4
```

Judges Output to screen:

```
31.00
5.29
-6.00
-2.96

30.00
4.91
-8.00
-0.61

37.50
5.43
-10.00
-0.97
```

4. Day To Day

Data File name: daytoday.dat

Judges Data:

```
6
6 2 2012 6 22 2012
7 4 2011 12 25 2011
12 28 1980 1 1 1981
1 3 1999 1 4 1999
2 25 2012 3 3 2012
2 22 2012 3 1 2013
```

Judges Output to screen:

```
19
173
3
0
6
374
```

5. Flex J Box

Data File name: conversions.dat

Judges Data:

```
4
4 5 2 2
10 9 3 4
3 3 1 1
6 8 4 6
```

Judges Output to screen:

```
*****
*****
**J**
*****

*****
*****
*****
*****J*****
*****
*****
*****
*****
*****
*****
*****

***
*J*
***

*****
*****
*****
*****
*****J*
*****
```

6. Gender Race

Data File name: gender_race.dat

Judges Data:

```
13
Sue 48 F
Kelly 52 M
Stacey 43 F
Kelly 49 F
Stacey 50 M
John 44 M
Bob 41 M
Carol 46 F
Ted 59 M
Alice 47 F
Joe 45 M
Sally 51 F
Fran 53 F
```

Judges Output to screen:

```
Bob 41 M
Stacey 43 F
Bob 41 M
John 44 M
Stacey 43 F
Carol 46 F
```

7. Maze Map

Data File name: mazemap.dat

Judges Data:

4

4 ECAE 844A

6 68D8904098A0 C83018C83088

5 DC6B4 749DF

7 EC003840D8745C ECE054D498D4F8

Judges Output to screen:

111 110 101 111

100 010 010 101

01101 11011 10010 01000 10011 10100

11001 00110 00011 11001 00110 10001

1101 1100 0110 1011 0100

0111 0100 1001 1101 1111

111011 000000 001110 010000 110110 011101 010111

111011 111000 010101 110101 100110 110101 111110

8. Snapshot Day

Data File name: snapshot.dat

Judges Data:

```
35 5 7
30 3 2
35 14 0
30 10 4
25 5 3
45 1 0
```

Judges Output to screen:

```
200
16
6
6 2 1 5 4 3
```

9. Taxi, Taxi, UIL Taxi!

Data File name: taxi.dat

Judges Data:

```
1 0
2 0
1.5 75
3.4 125
3 0
4.4 200
14.9 720
```

Judges Output to screen:

```
$1.38
$2.48
$2.44
$4.62
$3.58
$5.92
$19.18
```

10. Test Parity

Data File name: testparity.dat

Judges Data:

12 50 80 117 25 26 63 110

Judges Output to screen:

24 75 80 105 50 39 79 99

11. Weird Change

Data File name: weirdChange.dat

Judges Data:

12
41
34
50
10
99
126
161
65

Judges Output to screen:

\$0.36 0 0 0 0 2 2
\$1.23 0 0 1 1 1 0
\$1.02 0 0 1 0 2 1
\$1.50 0 1 0 1 0 0
\$0.30 0 0 0 0 2 0
\$2.97 2 0 0 0 1 0
\$3.78 1 2 0 0 1 0
\$4.83 0 4 0 1 0 0
\$1.95 0 1 1 0 1 0

12. Y Tree

Data File name: ytree.dat

Judges Data:

3

5

7

9

Note to Judge – Dynamic Output required, no hardcoding allowed, please examine source code

Judges Output to screen:

```

      * * *          * * *
        * * *    * * *
          * * * * *
            * * * *
              * * *
                * * *
* * *                  * * *
  * * *                * * *
    * * *              * * *
      * * *    * * *
        * * * * *
          * * *
            * * *
              * * *
                * * *
* * *
  * * *
    * * *
      * * *
        * * *
          * * *
            * * *
              * * *
                * * *

```

[illegible]