

**2001/2002 ACM SOUTHERN CALIFORNIA REGIONAL  
SCHOLASTIC PROGRAMMING CONTEST**

**Problem 3  
Tax Relief**

In June the IRS notified taxpayers that the United States Congress passed and President George W. Bush signed into law the Economic Growth and Tax Relief Reconciliation Act of 2001. As part of the immediate relief, taxpayers would receive a check, the amount of which was based on information submitted on their 2000 federal tax return. The notification described how the check amount was calculated, reproduced here in Table 3.1. Distribution of the checks was based on the schedule of Table 3.2.

If your filing status is:	Then:
Single or Married Filing Separately	The amount of your check will be the lesser of: - \$300 - 5% of your taxable income, or - your income tax liability
Head of Household	The amount of your check will be the lesser of: - \$500 - 5% of your taxable income, or - your income tax liability
Married Filing Jointly or Qualifying Widow(er)	The amount of your check will be the lesser of: - \$600 - 5% of your taxable income, or - your income tax liability

**Table 3.1.** Refund amount.

If the last two digits of your Social Security Number are:	You should receive your refund the week of:
00 - 09	July 23
10 - 19	July 30
20 - 29	August 6
30 - 39	August 13
40 - 49	August 20
50 - 59	August 27
60 - 69	September 3
70 - 79	September 10
80 - 89	September 17
90 - 99	September 24

**Table 3.2** Refund distribution date.

As a new employee at the Department of the Treasury, you have been tasked with developing the program to determine the value of each taxpayer's check. Input to your program is one line per taxpayer, consisting of Social Security Number, filing status, taxable income, and tax liability, each separated by single spaces. The format for the Social Security Number is ###-##-####, where # is a decimal digit, 0-9. The filing status is a single digit,

- 1 Single
- 2 Married Filing Jointly
- 3 Married Filing Separately
- 4 Head of Household
- 5 Qualifying Widow(er)

Taxable income and tax liability are whole integer dollars.

**Problem 3**  
**Tax Relief (continued)**

For each taxpayer, output the Social Security Number (exactly as input), two spaces, a dollar sign '\$' and the check amount left justified with no leading zeros as dollars, a decimal point, and two digits of cents.

Then for each week for which checks are to be distributed, output a summary line reporting the number of checks (no leading space), two spaces, a dollar sign '\$' and the week's total distributed amount left justified with no excess leading zeros as dollars, a decimal point, and two digits of cents, one space and the week exactly as listed in Table 3.2. List the weeks in the same order as Table 3.2.

*Sample Input*

```
123-45-0001 1 40100 8200
890-12-3456 4 98910 24182
123-45-0002 4 6000 904
```

*Sample Output*

```
123-45-0001 $300.00
890-12-3456 $500.00
123-45-0002 $300.00
2 $600.00 July 23
1 $500.00 August 27
```