

**DWITE Online Computer Programming Contest
January 2006**

Problem 4

Equivalent Amounts

How many cups make a quart? How many bushels in a peck?

Below is a chart of equivalent measures that are commonly used when cooking and baking.

1 tablespoon	3 teaspoons
1 cup	16 tablespoons
1 pint	2 cups
1 quart	4 cups
1 gallon	4 quarts
1 peck	8 quarts
1 bushel	4 pecks

Your job as a programmer is to determine the equivalent amount of one unit of measurement given an amount of another unit of measurement. The units of measurement available are: teaspoons, tablespoons, cups, pints, quarts, gallons, pecks and bushels.

The input file (**DATA41.txt** for the first submission and **DATA42.txt** for the second submission) will contain 5 lines of data. Each line will contain a string in the following format:

X MEASUREMENT = ? MEASUREMENT

where **X** is a positive integer, $0 < X \leq 10000$, and **MEASUREMENT** is one of the units of measurement available, in upper case.

The output file (**OUT41.txt** for the first submission and **OUT42.txt** for the second submission) will contain five lines of data. Each line will contain the equivalent amount in the second measurement accurate to two decimal places.

<u>Sample Input (3 lines only)</u>	<u>Sample Output</u>
1 QUARTS = ? CUPS	4.00
1 PECKS = ? BUSHELS	0.25
3 GALLONS = ? TEASPOONS	2304.00