Seven Lakes
Computer Programming

Kickoff Classic
October 3rd, 2009

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SLHSCS09 **10/3**

I Agree

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SOURCE: prob1.java
INPUT: none

PROBLEM DESCRIPTION:
Print out the following template with your team's information. Note that the last line must be printed.

OUTPUT DESCRIPTION:
This is team TEAM# with team members
Team member 1
Team member 2
Team member 3
We agree to give Xavier Beynon five dollars if we do not win.

SAMPLE OUTPUT:
```
This is team 55 with team members
Barack Obama
Hillary Clinton
Oprah Winfrey
We agree to give Xavier Beynon five dollars if we do not win.
```

Supplies

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SOURCE: prob2.java
INPUT: prob2.in

PROBLEM DESCRIPTION:
It's the day before school starts and Xavier Supply Corp is selling school supplies and swindling customers. All school supplies and prices are listed below:

Ticonderoga pencil	$2500.99
BIC pen	$15000.85
Mead paper	$1999.02
Accent highlighters	$.50
Generic index cards	$9988.69

INPUT DESCRIPTION:
The first integer represents the number of data sets to follow. Every data set will consist of 5 positive integers separated by a space, A, B, C, D, and E.
A: # of pencils
B: # of pens
C: # of packs of paper
D: # of boxes of highlighters
E: # of packs of index cards

OUTPUT DESCRIPTION:
Print out the subtotal of the purchase formatted to 2 decimal places preceded by a dollar sign.

SAMPLE INPUT:
```
3
4 2 3 8 10
8 9 15 64 25
18 19 20 21 0
```

SAMPLE OUTPUT:
```
$145893.62
$434750.12
$370024.87
```

Stock

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SOURCE: prob3.java
INPUT: none

PROBLEM DESCRIPTION:
Sweaty stock traders in woolen suits are pressed up against you – the drone of someone on a microphone far away leaves a dull ringing in your ears. Numbers in green and red blind you with endless flashing digits. But all you want to know is how much your own 5 stocks are worth. Write a program to print out today's stock information.

OUTPUT DESCRIPTION:

```
Name      Symbol    Current   Change
Google    GOOG      $470.59   (+1.32%)
Best Buy  BBY       $37.32    (+.22%)
Amazon    AMZN      $37.32    (-.62%)
Xavier    XAV       $34.20    (+7.40%)
Ford      F         $ 7.49    (-1.58%)
```

ASSUMPTIONS:
Each column is 9 characters long. Cells that are less than 9 characters long should be padded with spaces.

SAMPLE OUTPUT:

```
Name      Symbol    Current   Change
Google    GOOG      $470.59   (+1.32%)
Best Buy  BBY       $37.32    (+.22%)
Amazon    AMZN      $37.32    (-.62%)
Xavier    XAV       $34.20    (+7.40%)
Ford      F         $ 7.49    (-1.58%)
```

SLHSCS09 RPG 10/3

SOURCE: prob4.java
INPUT: prob4.in

PROBLEM DESCRIPTION:
One aspect of an RPG game is the element of choice. In this simplified game, your goal is to gain 10 experience points. Given a list of monsters, equipment, and statistics, determine which enemies you should attack to gain these points in the shortest amount of time.

PROBLEM INPUT:
The first integer n represents the number of data sets of follow. Each data set starts with two integers A and B, representing the number of monsters and pieces of equipment respectively. The first A lines will describe a monster in the following format:
`name monster_experience money_bonus experience_bonus`
name will be a unique string. `monster_experience`, `money_bonus`, and `experience_bonus` will be positive integers.
The next B lines will describe a piece of equipment in the following format:
`name cost experience_bonus`
`name` will be a unique string. `cost`, and `experience_bonus` will be positive integers.

PROBLEM OUTPUT:
Print out every action you perform.
If you attack a monster, print out "Defeated a `monster_name`".
If you purchase an item, print out "Bought a `equipment_name`".
If you gain 10 experience points, the game is over. Print out "Gained 10 experience".
Print out a line between each data set.

ASSUMPTIONS:
- You start with no money and no experience (0).
- You can only attack monsters that have an experience level less than or equal to your own.
- When you defeat a monster, you gain the `money_bonus` and `experience_bonus`.
- You can purchase equipment between attacking monsters with your money. Note that you must have enough money to purchase the piece of equipment. Once purchased, you will gain its `experience_bonus`.
- The game ends when you reach level 10 or higher.
- You can attack the same monster multiple times.
- You can only buy a piece of equipment once.

SAMPLE INPUT:
```
2
5 4
Goblin 0 50 0
Rich_Goblin 0 550 0
Tiger 5 50 2
Bear 8 100 1
Dragon 9 150 4
Sword 1000 2
Axe 1200 5
Hammer 1100 5
Two-Hand_Sword 2000 25
4 2
```

```
Rich_Guy 0 1000 0
Some_Guy 0 0 0
Some_Girl 0 0 0
Lawyer 10 0 1
Lawsuit 1000 10
Some_Thing 0 0
```

SAMPLE OUTPUT:

```
Defeated a Rich_Goblin.
Defeated a Rich_Goblin.
Bought a Hammer.
Defeated a Tiger.
Defeated a Tiger.
Defeated a Tiger.
Defeated a Dragon.
Gained 10 experience

Defeated a Rich_Guy.
Bought a Lawsuit.
Defeated a Lawyer.
Defeated a Lawyer.
Defeated a Lawyer.
Defeated a Lawyer.
Defeated a Lawyer.
Defeated a Lawyer.
Defeated a Lawyer.
Defeated a Lawyer.
Defeated a Lawyer.
Defeated a Lawyer.
Gained 10 experience
```

Lost in Folders

SLHSCS09 10/3

SOURCE: prob5.java
INPUT: prob5.in

PROBLEM DESCRIPTION:
Folders are a double edged sword - they keep files organized, but become annoying when navigating to a particular file many folders deep. Write a program that finds a file's location given a folder layout.

INPUT DESCRIPTION:
Two integers A and B. The first A lines represent the folder hierarchy. (The format of each line is described more thoroughly in the Assumptions section). The next B lines the names of files whose paths need to be found.

OUTPUT DESCRIPTION:
The full path (starting with the root folder) of the file.

ASSUMPTIONS:
Each line of the folder layout (except the first) has a series of dashes that represent the depth of the folder/file.

For instance, the following:
a/
-b/
-c/
--d/
---e.txt

Means that folder "a" is the root folder. Folders "b" and "c" are contained within "a". Folder "d" is contained within folder "c". File "e.txt" is contained in folder "d".

- Folders names end in a slash.
- Files names do not.
- Each folder/file name will be unique.
- Each file will exist in the hierarchy.
- File names will be listed before subfolders.

SAMPLE INPUT:

```
43 5
H/
-Java/
--eclipse/
---eclipse.exe
--jcreator/
---jcreator.exe
---templates/
----contest.java.jc
--a/
---file.dat
---b/
----file2.dat
----c/
```

Lost in Folders

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```
-----file3.dat
-----d/
------file4.dat
------file4.txt
------e/
-------file5.dat
-------file5.txt
-------f/
--------file6.dat
--------file6.txt
--------g/
---------file7.dat
---------file7.txt
---------h/
----------file8.dat
--TCEA2008/
---solutions/
----pr91.java
----pr92.java
----pr93.java
----pr94.java
----pr95.java
----pr96.java
---sin/
----pr91.dat
----pr92.dat
----pr93.dat
----pr94.dat
----pr95.dat
----pr96.dat
eclipse.exe
contest.java.jc
pr96.dat
file5.dat
file5.txt
```

SAMPLE OUTPUT:

```
H/Java/eclipse/eclipse.exe
H/Java/jcreator/templates/contest.java.jc
H/Java/TCEA2008/sin/pr96.dat
H/Java/a/b/c/d/e/file5.dat
H/Java/a/b/c/d/e/file5.txt
```

Texting

SLHSCS09 10/3

SOURCE: prob6.java
INPUT: prob6.in

PROBLEM DESCRIPTION:
Your grandmother just got a new iPhone! But she doesn't understand the art of SMS, and needs help texting. Write a program that replaces certain words/phrases with corresponding emoticons/abbreviations according to this chart:

Replace this	With this
happy	:)
sad	:(
angry	D:<
laughing	XD
discontented	ugh
laugh out loud	lol
talk to you later	ttyl
I don't know	idk
cool	$)

INPUT DESCRIPTION:
The first integer represents the number of data sets to follow. Each data set will contain a string that needs to be translated.

OUTPUT DESCRIPTION:
Print out the translated sentence.

ASSUMPTIONS:
Note that "sadness" would not translate to ":(ness". Only translate complete words/phrases – not inner words/phrases. Punctuation and case should not affect the answer. If a word is not translated, do not change its case or included punctuation.

SAMPLE INPUT:
```
6
Everything is cool as of now.
That comment made me very happy!
My cat makes me laugh out loud.
I don't know why I am so sad today.
Sadness makes me angry.
SAD DISCONTented cats!!!
```

SAMPLE OUTPUT:
```
Everything is $) as of now.
That comment made me very :)!
My cat makes me lol.
Idk why I am so :( today.
Sadness makes me D:<.
:( ugh cats!!!
```