More Exercise: Strings and Text Processing

Problems for exercise and homework for the "C# Fundamentals" course @ SoftUni You can check your solutions here: Judge

1. Extract Person Information

Write a program that reads **N** lines of strings and extracts the **name** and **age** of a given person. The name of the person will be **between '@'** and **'|'**. The person's **age** will be **between '#'** and **'*'**. **Example: "Hello my name is @Peter| and I am #20* years old." For each** found name and age **print** a line in the following format "{name} is {age} years old."

Example

Input	Output
2	George is 18 years
Here is a name @George and an age #18*	old.
Another name @Billy #35* is his age	Billy is 35 years
	old.
3	lilly is 5 years
random name @lilly random digits #5* age	old.
@Marry with age #19*	Marry is 19 years
here Comes @Garry he is #48* years old	old.
	Garry is 48 years
	old.

2. Ascii Sumator

Write a program that prints a sum of all characters between two given characters (their ascii code). On the first line you will get a character. On the second line you get another character. On the last line you get a random string. Find all the characters between the two given and print their ascii sum.

Example

Input	Output
•	363
@	
dsg12gr5653feee5	
;	262
E	
@ABCEF	

3. Treasure Finder

Write a program that decrypts a message by a given key and gathers information about hidden treasure type and its coordinates. On the first line you will receive a key (sequence of numbers). On the next few lines until you receive "find" you will get lines of strings. You have to loop through every string and decrease the ascii code of each character with a corresponding number of the key sequence. The way you choose a key number from the sequence is just looping through it. If the length of the key sequence is less than the string sequence, you start looping from the beginning of the key. For more clarification see the example below. After decrypting the message you will get a type of treasure and its coordinates. The type will be between the symbol '&' and the coordinates will be between the symbols '<' and '>'. For each line print the type and the coordinates in format "Found {type} at {coordinates}".

Example

Input	Output	Comment
1 2 1 3	Found gold at 10N70W	We start looping through the
ikegfp'jpne)bv=41P83X@	Found Silver at 32S43W	first string and the key. When
ujfufKt)Tkmyft'duEprsfjqbv		we reach the end of the key we
fv=53V55XA		start looping from the
find		beginning of the key, but we
		continue looping through the
		string. (until the string is
		over)
		The first message is:
		"hidden&gold&at<10N70W>" so we
		print we found gold at the
		given coordinates
		We do the same for the second
		string
		"thereIs&Silver&atCoordinates<
		32S43W>"(starting from the
		beginning of the key and the
		beginning of the string)

4. Morse Code Translator

Write a program that translates messages from **Morse code to English** (capital letters). Use <u>this</u> page to help you (without the numbers). The words will be separated by a **space** (''). There will be a '|' character which you should replace with '' (space).

Example

Input	Output
	I MADE YOU WRITE A LONG
	CODE
	I HOPE YOU ARE NOT MAD

5. HTML

You will receive 3 lines of input. On the first line you will receive a title of an article. On the next line you will receive the content of that article. On the next n lines until you receive "end of comments" you will get the comments about the article. Print the whole information in html format. The title should be in "h1" tag (<h1></h1>); the content in article tag (<article></article>); each comment should be in div tag (<div></div>). For more clarification see the example below

Example

Input	Output
SoftUni Article	<h1></h1>
Some content of the SoftUni article	SoftUni Article
some comment	

more comment	<article></article>
last comment	Some content of the SoftUni article
end of comments	
	<div></div>
	some comment
	<div></div>
	more comment
	<div></div>
	last comment