

Problem 1

Start



input Sentence



Determine longest word

Go through using loop to determine longest word
1st word > 2nd word? If yes, 1st word is longest. Then 1st > 3rd &
and keep going until analyzed entire sentence



Print "+" + length of longest
word * 2 = number of "-" + "+" // "



Print "1" + "1st word" + "1" // "1" match with "+"



Print "1" + "2nd word" + "1"



Print "1" + length of longest
word * 2 = number of "-" + "+"

Problem 3

Start
↓

Give values
to each Roman
Numeral

// I=1, V=5, etc

↓

Input Roman
Numeral

↓

Is it a valid Roman Numeral?

Yes
→

Print out
numerical
value

// Create function that
accurately calculates
Roman Numeral

↓ No

Create function that Prints
Type of error

// invalid letter, Auxiliary Symbols, Subtraction, etc

Problem 2

Start

Given an association

2: abc	6: mno
3: def	7: pqr
4: ghi	8: tuv
5: jkl	9: wxy

input phone #

// 7 digits

Give a hint to each number

// i = first, j = second, x = third, etc.

```
for (int i = 0; i < length; i++)  
  for (int second; ... )  
    ...
```

loop

Print out all possible combinations

// is 0 or 1, print " "