Computer Science Club

2015-2016

Problem: Caesar Cipher

Difficulty: Moderate

Directions) In cryptography, a **Caesar cipher**, also known as **Caesar's cipher**, the **shift cipher**, **Caesar's code** or **Caesar shift**, is one of the simplest and most widely known encryption techniques. It is a type of substitution cipher in which each letter in the plaintext is replaced by a letter some fixed number of positions down the alphabet. For example, with a left shift of 3, `D` would be replaced by `A`, `E` would become `B`, and so on. The method is named after Julius Caesar, who used it in his private correspondence.

Example) BED, shifted 3 to the right encodes as: EHG

Create a program that lists all of the possibilities for the encoded message below and use the printout to determine the original message. ALL 25 possibilities must be shown for credit.

```
kf zkvirkv zj yldre kf ivtli zj uzmzev
```

Sample Printout)

```
Input: yfijv
Key of 1: zgjkw
Key of 2: ahklx
Key of 3: bilmy
Key of 4: cjmnz
Key of 5: dknoa
Key of 6: elopb
Key of 7: fmpqc
Key of 8: gnqrd
Key of 9: horse
Key of 10: ipstf
Key of 11: jqtug
Key of 12: kruvh
Key of 13: lsvwi
Key of 14: mtwxj
Key of 15: nuxyk
Key of 16: ovyzl
Key of 17: pwzam
```

```
Key of 18: qxabn
Key of 19: rybco
Key of 20: szcdp
Key of 21: tadeq
Key of 22: ubefr
Key of 23: vcfgs
Key of 24: wdght
Key of 25: xehiu
```