## 2. Morse Code

PROBLEM: Given the syntax of Morse Code, translate from Morse code to English and from English to Morse Code. As shown below the syntax for each letter is a series of dots and dashes. For input simplification ACSL will use ' d ' for dots and ' D ' for dashes. Letters will be separated by a space (ACSL will use the '\#' to denote spaces) and words will be separated by a slash (ACSL will use a ' $/$ ' ). All Morse code strings will end with a slash.

| ALPHA | MORSE | ALPHA | MORSE |
| :---: | :---: | :---: | :---: |
| A | - | N | -. |
| B | $\cdots$ | O | --- |
| C | -. | P | .- |
| D | -.. | Q | -- |
| E | . | R | - |
| F | ...- | S | ... |
| G | --. | T | - |
| H | .... | U | . - |
| I | . | V | ... - |
| J | .--- | W | .-- |
| K | -.- | X | -..- |
| L | .-.. | Y | -. -- |
| M | -- | Z | --. |

INPUT: There will be 5 input lines. Each line must be read in as a string. The first 3 input lines will be in Morse Code and must be converted to English. The last 2 input lines will be in English (all upper case letters) and must be converted to Morse code.

OUTPUT: For each input string, translate and print in the converted language using the syntax and rules above.

## SAMPLE INPUT

1. dD\#DdDd\#ddd\#dDdd/
2. dd/dD\#DD/

4 ACSL

## SAMPLE OUTPUT

1. ACSL
2. I AM (space between I and A required)
3. $\mathrm{dD} \# \mathrm{DdDd} \# d d d \# d D d d /$
