

YOUR NAME:

REGISTRATION #:

(15 points)

(E) BrokEnglish! (1/2)

Spencer, a computational linguist trying to lessen the amount of time he spends on email, writes a simple find-and-replace script that he hopes will mean he spends a little less time typing out language names.

The script goes through his emails before they're sent and automatically replaces certain two letter ISO 639-1 language codes (like `fr`) with the full names of the languages (like French):

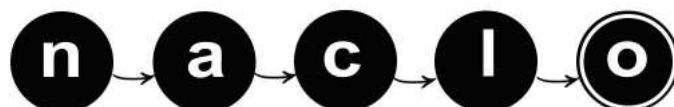
ISO 639-1 code	Language name
ce	Chechen
ch	Chamorro
en	English
fr	French
he	Hebrew
is	Icelandic
ro	Romanian

Things seem to be going great... until he starts getting some very confused replies, like the following:

```
From: christine@ioling.org
Sent: Monday, 23 August 2010 11:38
To: spencer@ioling.org
Subject: Re: Time-saving script

um, spence? i think something has gone REALLY wrong
with your script...

On Mon, Aug 23, 2010 at 09:34 AM spencer@ioling.org
wrote:
> Hebrewy, ChamorRomanianrICHebrewcHebrewnlandic!
whEnglish
> you get a FrEnglishcHebrewe momEnglisht, cHebrewck
out
> thICHebrewcHebrewnlandic niCHebrewcHebrewn little
> pRomaniangram i wRomaniane.
> -- spEnglishCHebrewcHebrewnr
```



YOUR NAME:

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(E) BrokEnglish! (2/2)

- E1.** What message did Spencer intend to send?

- E2.** Spencer's script replaced each of the six language codes one after another: for example, all instances of `fr` were replaced before any of the other codes were replaced. Determine *in what order* the script must have replaced the codes.

f r then _____ then _____ then _____ then _____ then _____ then _____.

- E3.** What would Spencer's script do to the following input?

fresh fish from concentrate

- E4.** What alternate ordering would produce the longest message when given Spencer's original email as input?

— — then **r** o .

