

ThoughtWorks®

SMS ZERO FOR A SUPER HERO

The time is set in a dystopian future when crime is a global issue. **Crime Zero Inc.** sets up a SMS service where you type in `0 <space> <code>` to call for a super hero for rescue. You are assigned the job of developing a system that reads the SMS and translates the code into possible names of super heroes so that Crime Zero Inc. can send a distress signal to alarm your savior.

The program should map the standard telephone keypad numbers to corresponding letters with the given set of super hero names. See APPENDIX for the list of names.

1 @.?	2 ABC	3 DEF
4 GHI	5 JKL	6 MNO
7 PQRS	8 TUV	9 WXYZ
* <i>send</i>	0 <i>Zero</i>	# <i>space</i>



For example,

4855 generates the following combination of words: [gvlj, htkl, itlj, hulk, gtjj, hvkl, ...]

Out of the 81 combinations, only **hulk** is a valid name. This is arrived by mapping numbers to letters in the following manner:

4 – h

8 – u

5 – l

5 – k

Write a program that asks for a list of sms messages and decodes the name of the correct super hero based on the given list of names.

Program Input

0 228626

0 4855

0 78737626

0 8467

Program Output

BATMAN

HULK

SUPERMAN

THOR

APPENDIX

List of super hero names:

SUPERMAN	THOR	ROBIN	IRONMAN	GHOSTRIDER	CAPTAINAMERICA	FLASH	WOLVERINE
BATMAN	HULK	BLADE	PHANTOM	SPIDERMAN	BLACKWIDOW	HELLBOY	PUNISHER