**World Ladder**

Max Score: 15

The bomb has been defused but now he faces another problem! You are kidnapped by Tan Jien Henn and he requires you to help him decipher a message. He claims that it is from an intelligent extraterrestrial life form and expects you to decrypt the message. You are provided with:

* Starting word
* Ending word
* Wordlist

Using the word list, your task is to determine the length of the shortest transformation sequence from the starting word to the ending word such that:

* Only one letter can be changed (or removed) at a time.
* Each transformed word must exist in the word\_list.
* Start\_word does not count as one of the transformed words.

**Input Format**

*start\_word*, string on line 1

*end\_word*, string on line 2

Use this space seperated string as your word list. You will need to copy it onto your code. It will NOT be inputted for you.

sgy cxk zcm gfp vmf kjt fvs vdn til gop cgn svp epb pgy poy poi doi dri drt nrt nrg nvg gvg gvh gjh ljh rsz wjf avh kml was nrk bea avp eml uyr gth kir bsd xpm yxp hht nvy xic nal idg nih qmc jhd bcb vur ckc hao iih uwt awq hhw aze tuc dbx ipc vff oed qlc mrb xxa ijq vry ius paj krf cyi stl yml eom cfj jrz opc dnw dnd hyq iys fnv yiv gyq bac tbk vxs kzo ilq rtc uti qay pxs kdt iyl poy sch nrv pno wwm ryn dab njj bnb lbk xqh fvj ymi pud emi eng jue tlx wzc gpv qfz lsj hgs sxc xgf bom zro fgf bhr qxp zsf wev hss zof dpa gdl uzy fkv fdr ghb flc vse ewi oey mme con wqt xld wnf fnd suf znq izg idi sei vbh btx xkv obg ntz kwb nit ush bvv hkr ubp zdy xhx ezt jwh nme apw rlr ycy ljk ujk pno wwm ryn dab njj jbd asp eue chl bvv hkr ubp iir lwr aav dfh avb mtp jvd kjc oby qsu gcy czy gql mhh gmp qit pud emi eng jue tlx wzc gpv qfz lsj hgs sxc xgf bom zro fgf bhr qxp zsf wev hss zof dpa gdl uzy fkv fdr ghb flc vse ewi oey mme con wqt xld wnf fnd suf znq izg idi sei vbh btx xkv obg ntz kwb nit spk zpq lgd hsi fyo exd zvg jig erk euu yxm wet ein nst nuv kvw iem rcp haw ltw psk fph npj pun dxr rsz wjf avh kml was nrk bea avp eml uyr gth kir bsd ukk

**Constraints**

No constraints

**Output Format**

*Integer*, for the number of transformations needed

**Sample Input 0**

sgy

ukk

**Sample Output 0**

16