# A test of "fundamentals of programming" – 18 December 2016

## Task 6. Combinations of letters

Write a program to **print** on the console **all combinations of** **3 letters**at the **specified interval**, **skipping** the combinations **containing** **set of console letter**. **Finally, it should be print the number** of **printed combinations**.

### Login

The input read from **the console** and contains **exactly 3 lines:**

**Row 1.** **Small letter of the English alphabet for the start of the range, from ' a ' to ' z '.**

**Row 2.** **Small letter of the English alphabet for the end of the interval from the first letter to ' z '.**

**Line 3.** **Small letter of the English alphabet from ' a ' to 'z '  as the combinations containing this letter omitted.**

### Exit

To be printed on **a single line** **all combinations matching the condition** **plus the number** **separated by a space.**

### Sample input and output

|  |  |  |
| --- | --- | --- |
| **Login** | **Exit** | **Explanations** |
| a  c  b | aaa aac aca acc caa cac cca ccc 8 | All possible combinations of letters a, b, and c are:  aaa aab aac aba abb abc aca acb acc baa bab bac bba bbb bbc bca bcbbcc caa cab cac cba cbb cbc cca ccb ccc  The combinations **containing** **b are not valid**.  Eight valid combinations |
| **Login** | **Exit** | |
| f  k  h | fff ffg ffi ffj ffk fgf fgg fgi fgj fgk fif fig fii fij fik fjf fjg fji fjj fjk fkf fkg fki fkj fkk gff gfg gfi gfj gfk ggf ggg ggi ggj ggk gif gig gii gij gik gjf gjg gji gjj gjk gkf gkg gki gkj gkk iff ifg ifi ifj ifk igf igg igi igj igk iif iig iii iij iik ijf ijg iji ijj ijk ikf ikg iki ikj ikk jff jfg jfi jfj jfk jgf jgg jgi jgj jgk jif jig jii jij jik jjf jjg jji jjj jjk jkf jkg jki jkj jkk kff kfg kfi kfj kfk kgf kgg kgi kgj kgk kif kig kii kij kik kjf kjg kji kjj kjk kkf kkg kki kkj kkk 125 | |
| **Login** | **Exit** | |
| a  c  z | aaa aab aac aba abb abc aca acb acc baa bab bac bba bbb bbc bca bcb bcc caa cab cac cba cbb cbc cca ccb ccc 27 | |