## Strings

Given two strings $A$ and $B$, we define the operator $\hat{c}$ on $\{A, B\}$ for string $C$ as $C \hat{c}\{A, B\}$.
if length $(A)<\operatorname{length}(C)<l e n g t h(B)$, then $C$ satisfies the above operator.
else
if length(A)=length(C), then C must be lexicographically greater than $A$.
if length $(B)=$ length $(C)$, then $C$ must be lexicographically smaller than $B$.

## Input

Given two strings $A, B$ with length $(A)<=$ length $(B)<=6$. A,B can contain any characters between $A$ and $J$ (capital letters).

## Output

Print the number of strings satisfying the above criteria. C must also satisfy criteria of $A$ and $B$. Any two adjacent characters in string $C$ may neither be the same nor consecutve (i.e. the absoulte difference between the ASCII values of adjacent characters is greater than 1).

## Example

Input:
A J
AA BCD
ABC DEFG

## Output:

8
129
1770

