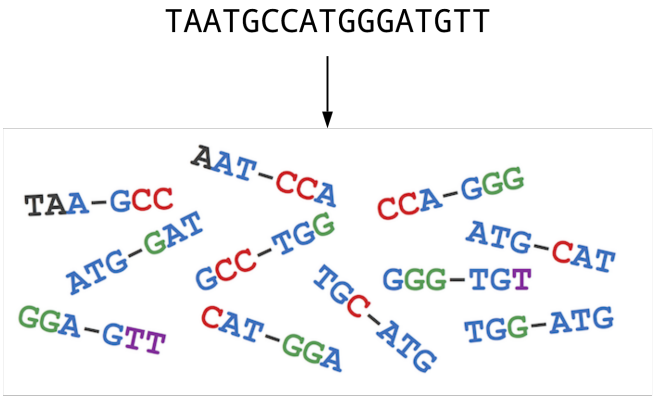
3J Reconstruct a String from its Paired Composition

String Reconstruction from Read-Pairs Problem
Reconstruct a string from its paired composition.

Input: Integers *k* and *d* and a collection of paired *k*-mers *PairedReads*.
Output: A string *Text* with (*k*,*d*)-mer composition equal to *PairedReads*.



Formatting

Input: Space-separated integers *k* and *d* followed by a space-separated list of paired *k*-mer strings *PairedReads* where individual *k*-mers within the pair are separated by a "|" character.
Output: A string *Text* with (*k*,*d*)-mer composition equal to *PairedReads* (if multiple answers exist, you may return any one).

Constraints

- The value of *k* will be between 1 and 10^2.
- The value of *d* will be between 1 and 10^3.
- The number of strings in *PairedReads* will be between 1 and 10^4.
- The length of any one pair of paired *k*-mers in *PairedReads* will be between 1 and 10^2.
- All *k*-mer strings in *PairedReads* will be DNA strings.

Test Cases

Case 1

Description: The sample dataset is not actually run on your code.

Input:

```
4 2
ACAC|CTCT ACAT|CTCA CACA|TCTC GACA|TCTC
```

Output:

```
GACACATCTCTCA
```

Case 2

Description: The sample dataset is not actually run on your code.

Input:

```
3 1
TCA|GCA TTC|TGC AAT|CAT ATT|ATG
```

Output:

```
AATTCATGCA
```

Case 3

Description: The sample dataset is not actually run on your code.

Input:

```
2 1
GG|GA GT|AT TG|TA GA|AC AT|CT
```

Output:

```
GGTGATACT
```

Case 4

Description: The sample dataset is not actually run on your code.

Input:

```
4 2
GTTT|ATTT TTTA|TTTG TTAC|TTGT TACG|TGTA ACGT|GTAT CGTT|TATT
```

Output:

```
TTTACGTTTGTATTT
```

Case 5

Description: The sample dataset is not actually run on your code.

Input:

```
3 2
GGG|GGG AGG|GGG GGG|GGT GGG|GGG GGG|GGG
```

Output:

```
AGGGGGGGGGGT
```

Case 6

Description: A larger dataset of the same size as that provided by the randomized autograder.