**ACSL Tiles**

**PROBLEM:**ACSL Tiles is a one-person game played with rectangular tiles. Each tile has a single-digit number between 1 and 9 inclusive at each end. At the start of the game, there are 4 rows, each with a number. The goal of the game is to build rows by placing a tile at the right end of a row whose last number matches a number on the tile. Tiles can be re-oriented; thus, the tiles 34 and 43 are the same tile. If a tile cannot be placed on any row, it is placed in the *discard pile*. When all tiles have been played or discarded, find the sum of the single-digit numbers on all of the tiles in the *discard pile*.

At each turn, try the next tile in your hand to see if it can be added to one of the rows, starting with the row after the one where the last tile was placed, rotating back to Row 1 if necessary. Start looking at Row 1 when the game starts. However, if the last tile placed was a *double*(i.e., both numbers are the same), another tile must be placed on that row before any other match can be considered. If the tile cannot be placed, add it to the *discard pile*.

**EXAMPLE:**

|  |  |
| --- | --- |
| **Input** | **Output** |
| 5923  56 27 73 34 99 45 32 19 64 57 18 | 21 |

Explanation:

The game starts with 4 rows having numbers 5, 9, 2, 3.

图片包含 图示

描述已自动生成

The tile 56 is placed on Row 1; the tile 27 is placed on Row 3; the tile 73 is placed on Row 4 as 37 because Row 4 is checked first after a tile is placed on Row 3; the tile 34 is placed on the discard pile; the tile 99 is placed on Row 2.

手机屏幕的截图

描述已自动生成

The 45 and the 32 tiles are placed in the discard pile because they don’t match the 99 tile; the tile 19 is placed on Row 2 as 91; the tile 64 is placed on Row 1; the 57 is placed on Row 3 as 75; and the 18 is placed on Row 2. The final outcome is shown below:

图片包含 形状

描述已自动生成

The sum of the single-digit numbers on the tiles in the discard pile is 3+4+4+5+3+2 = 21.

**INPUT:**Input a 4-digit number that gives the initial numbers, from Row 1 to Row 4. It is followed by a string of no more than 50 2-digit integers, each separated by a single space. Each 2-digit number represents the two numbers on each tile.

**OUTPUT:**After placing the tiles using the rules above, output the sum of the single-digit numbers on the tiles in the discard pile.

|  |  |
| --- | --- |
| **SAMPLE INPUT** | **SAMPLE OUTPUT** |
| 5923  56 27 73 34 99 45 32 19 64 57 18 | 21 |
| 4687  81 72 15 89 36 21 13 67 42 93 48 83 45 47 52 94 62 | 86 |
| 1932  94 81 13 43 21 31 89 69 18 28 86 88 29 89 92 | 11 |
| 1957  32 69 87 73 31 88 62 | 23 |
| 1542  24 44 39 32 92 63 47 76 37 78 38 | 46 |

**问题:**ACSL Tiles 是一个与长方形图块有关的单人游戏。每个图块的两端都有一个位于1~9 之间（包括 1 和 9 ）的个位数。游戏开始时，共 4 行，每一行都包含一个数字。游戏目标是构建行，将一个图块放在一行的右端，使得这行的最后一个数字与图块上的一个数字匹配。图块可以改变方向；例如，图块 34 和图块 43 相同。如果一个图块不能放置在任何一行中，则放弃该图块并将其归入 discard pile。当所有图块都已放置或放弃时，求 discard pile 中所有图块上个位数的总和。

每一轮游戏开始时，从上一块已放置图块所在行之后的行开始，思考某一图块是否可以被放在其中一行中。如需要，可循环返回第 1 行开始。游戏开始时，从第1行开始观察。如果行的最后一个图块是 double （即图块上两位数字相同），那么必须在考虑其他行的匹配之前先在该行末尾放置图块。如果某一图块无法放置，则放弃该图块并将其归入*discard pile。*

**示例:**

|  |  |
| --- | --- |
| **输入** | **输出** |
| 5923  56 27 73 34 99 45 32 19 64 57 18 | 21 |

详解:

游戏开始时，4 行初始数字为 5、9、2、3。

文本

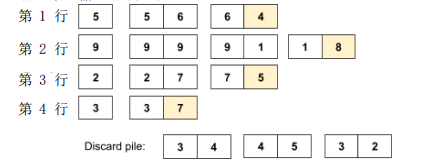
中度可信度描述已自动生成

图块 56 放置第 1 行；图块 27 放在第 3 行；第 3 行放置之后优先考虑第 4 行，图块 73 旋转为 37 后放在第 4 行；图块 34 归入 discard pile；图块 99 放在第 2 行。

图片包含 文本

描述已自动生成

由于图块 45 和图块 32 都与图块 99 不匹配，两个图块都被归入 discard pile ； 图块 19 旋转变成 91 之后放在第 2 行；图块 64 放在第 1 行；图块 57 旋转变成 75 之后放在第 3 行；图块18 放在第 2 行。最终输出结果如下：



discard pile 中所有图块上个位数之和为 3 + 4 + 4 + 5 + 3 + 2 = 21。

**输入:**输入一个 4 位数，这 4 位数字为第 1 行到第 4 行的初始数字，后面跟着一串包含不超过 50 个的两位整数，数字之间用一个空格隔开。每个两位整数代表每个图块上的两个数字。

**输出:**按照上述规则放置图块之后，输出 discard pile 中所有图块上个位数的总和。

|  |  |
| --- | --- |
| **样本输入** | **样本输出** |
| 5923  56 27 73 34 99 45 32 19 64 57 18 | 21 |
| 4687  81 72 15 89 36 21 13 67 42 93 48 83 45 47 52 94 62 | 86 |
| 1932  94 81 13 43 21 31 89 69 18 28 86 88 29 89 92 | 11 |
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