

## 11117 Little Quilt

*Little Quilt* is a small language introduced by Ravi Sethi in his book ‘Programming Languages’. Here, a restricted version of Little Quilt is presented.

The language is defined by the following BNF grammar:

$$\langle \text{QUILT} \rangle ::= A \mid B \mid \text{turn}(\langle \text{QUILT} \rangle) \mid \text{sew}(\langle \text{QUILT} \rangle, \langle \text{QUILT} \rangle)$$

A and B represent the two primitive quilts. Each primitive quilt corresponds to a matricial arrangement of  $2 \times 2$  characters. `turn()` and `sew()` are operations over quilts.

The instruction `turn(x)` turns the quilt `x` 90 degrees clockwise. The following table illustrates the primitive quilts as well as examples of the effect of the `turn()` operation:

A	// /+
turn(A)	\\ +\
turn(turn(A))	+/ //
turn(turn(turn(A)))	\+ \\
B	-- --
turn(B)	 

Accordingly, the instruction `sew(x,y)` sews quilt `x` to the left of quilt `y`. Both `x` and `y` must have the same height, otherwise an error will be generated. The following figure represents the result of `sew(A,turn(B))`:

```
//||
/+||
```

while the `sew(turn(sew(B,turn(B))),A)` generates an error message.

Your job is to build an interpreter of the Little Quilt language.

### Input

The input file will be a text file containing different Little Quilt expressions, each one ended by a semicolon character (;). Space and new line characters must be ignored; this means that an expression may span several lines.

### Output

The output file contains the quilts produced as a result of interpreting the input expressions.

Each quilt must be preceded by a line, left aligned, with the format

Quilt *i*:

where *i* is the quilt number, starting at 1. If the expression interpretation generates an error, the word ‘error’

must be printed.

**Sample Input**

```
sew(turn(sew(B,turn(B))),
      turn(sew(turn(B),B)))  ;
```

```
      sew(turn(sew(B,turn(B))),A);
sew(turn(sew(A,turn(A))),
     turn(turn(
           turn(sew(A,turn(A))))))
;
;
```

**Sample Output**

Quilt 1:

||--

||--

--||

--||

Quilt 2:

error

Quilt 3:

\\//

+\\/+

+/\+

//\