

1) SO: - F

S1: - F + F - F - F + F

S2: - F + F - F - F + F  
+ F + F - F - F + F  
- F + F - F - F + F  
- F + F - F - F + F  
+ F + F - F - F + F  
+ F + F - F - F + F

Tutf(c) - Interpretation:

-  $\stackrel{1}{=}$  fechts drehen

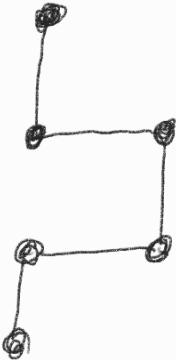
+  $\stackrel{1}{=}$  Giks drehen

→ Ursprungsblickung

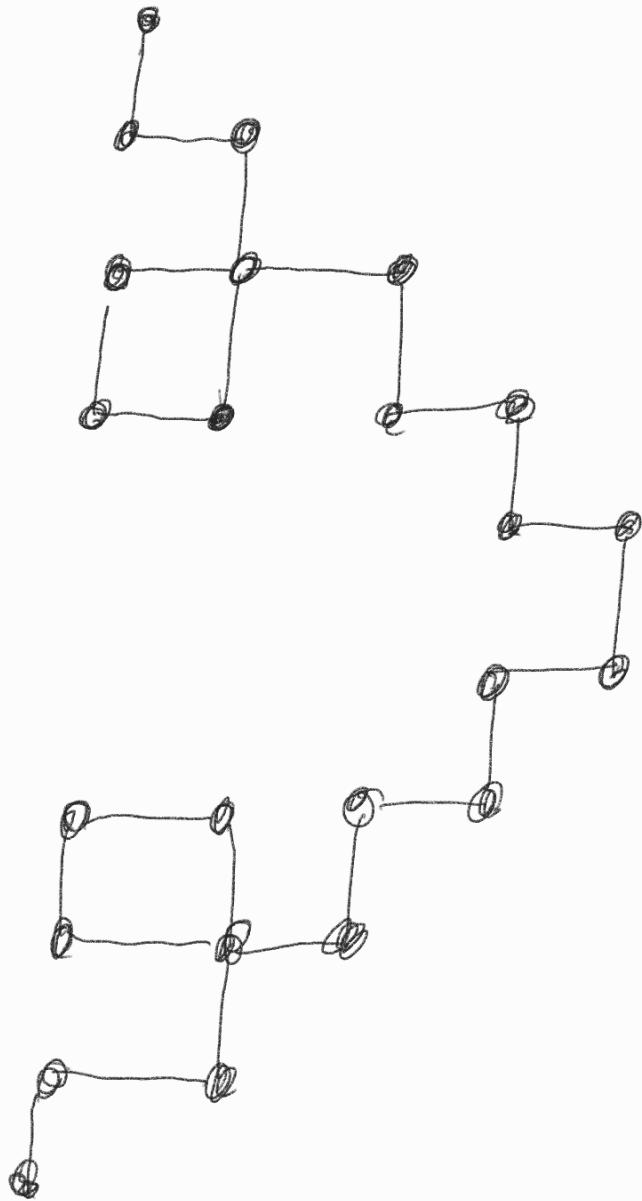
$S_0:$



$S_1:$



$S_2:$



2)  $S \xrightarrow{\textcircled{1}} \varepsilon, S \xrightarrow{\textcircled{2}} OSO,$   
 $S \xrightarrow{\textcircled{3}} 1S1$

$S \xrightarrow{\textcircled{2}} OSO \xrightarrow{\textcircled{3}} 01S10$   
 $0110 \leftarrow \textcircled{1}$

i) Paketframe mit einer  
geänderten Anzahl an Zeichen

0110

011110

ii)  $(W)_0 \equiv 0 \pmod 2$

(1A)  $S \rightarrow \varepsilon$

$$|\varepsilon|_0 = 0 \equiv 0 \pmod{2}$$

(1S)  $S \rightarrow 050$

$$|w_n|_0 \rightarrow 0 (w_n|_0) = |w_{n+1}|_0$$

$$0 (w_{n+1}|_0) \equiv 0 \pmod{2}$$

$w|_1$  is equivalent

3) i) bool memberL7(v)

```

  {
    result = true;
    n = "Länge von v";
    if (n gerade) {
      fob (i=0; i <  $\frac{n}{2}$ ; i++) {
        if (v[i] != v[n-1-i]) {
          result = false;
        }
      }
      e{sc {
    }
  }
  
```

$\text{tesu}(t) = \text{false}$ ;  $j$

}

$\approx 0.10$

Fetch  $t \in \text{esu}(t \in WW^R)$

}

i)  $\Sigma = \{1, 0\}$

bool memberPitch( $\sigma$ )

{

$P = \text{INTEGER}(0);$

$\text{result} = \text{true};$

```
for(i=2; i<p; i++) {  
    if(p % i == 0) {  
        result = false;  
    }  
}
```

return result

}

```
bool memberComposite(c)  
{  
    return !memberPrim(c)  
}
```

$$4) L(G_4) = a^n b^n c^n$$

S Startsymbol

$$\textcircled{1} S \rightarrow aSBC$$

$$\textcircled{2} S \rightarrow abc$$

$$\textcircled{3} cB \rightarrow Bc$$

$$\textcircled{4} bB \rightarrow bb$$

$$(1A) S \xrightarrow{\textcircled{2}} abc$$

$$S \xrightarrow{\textcircled{1}} aSBC \xrightarrow{\textcircled{2}} aabcBc$$

$$aabbcc \leftarrow \textcircled{4} aabBcc$$

$$a^{h_1} b^{h_2} c^{h_3}$$

$$h_1 = h_2 = h_3$$