

Announcements

Quiz 2 moved to Nov 12

If it does not work for any reason
stop by my office on Nov 8, 4-6pm.

Regular expressions

$r ::= w \mid r_1 + r_2 \mid r_1 \cdot r_2 \mid r_1^*$

$r ::= \perp \mid \varepsilon \mid a \mid r_1 + r_2 \mid r_1 \cdot r_2 \mid r_1^*$

Hello \rightsquigarrow H.e.l.l.o

Σ^* President

$\left(\begin{array}{l} \text{The Vice President} \\ \hline \Sigma^* \\ \text{President} \end{array} \right)$

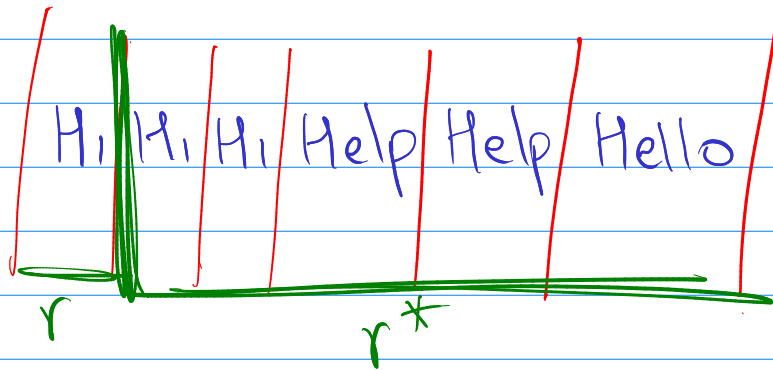
$[0-9]^*$

abcde

948

9 | 4 | 8
~
[0-9] [0-9] [0-9]

$(\text{Hi} + \text{Hello} + \text{Help})^*$



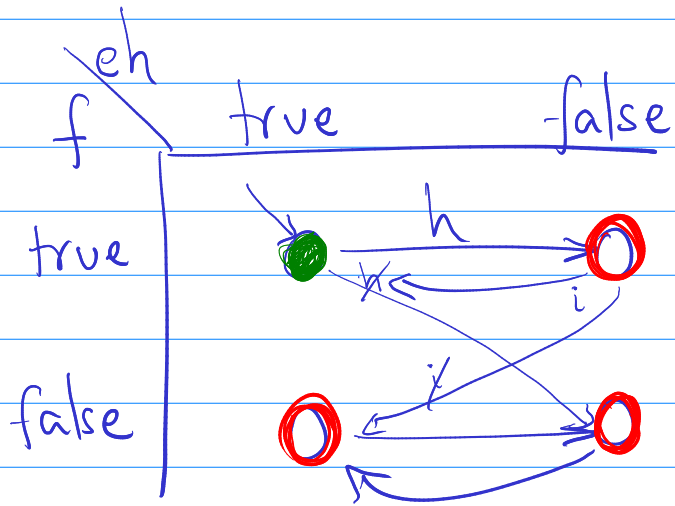
Axiom : $r^* = \varepsilon + r \cdot r^*$

hi^*

```
def matchesHiStar(w):
    expectingH = True
    flag = True

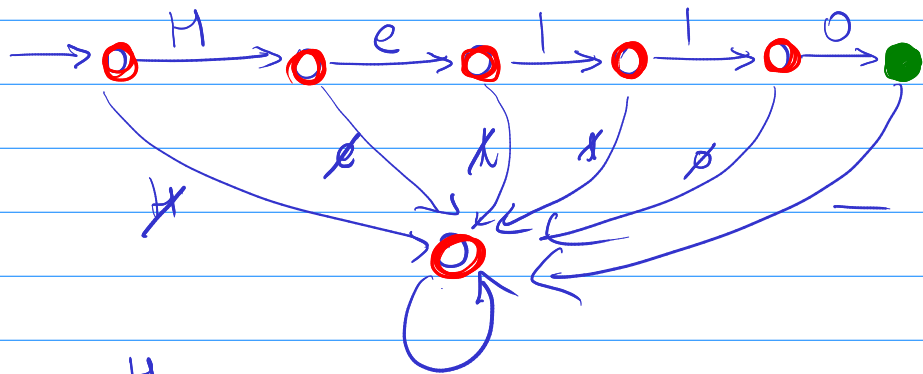
    for a in w:
        if expectingH:
            expectingH = False
            if a != 'h': flag = False
        else:
            expectingH = True
            if a != 'i': flag = False

    return expectingH and flag
```

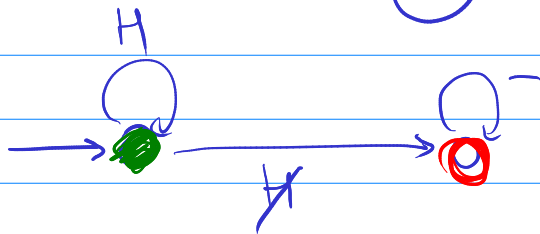


$r = w \mid r_1 + r_2 \mid r_1 \cdot r_2 \mid r_1^*$

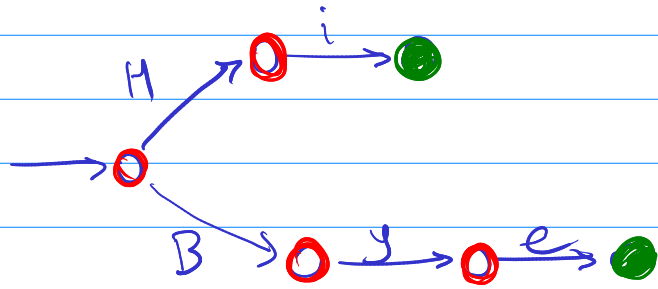
Hello



H^*



Hi + Bye



Hi + Hello

