

Ŷ XXæô” óHh†Xl nǒJXJT”

ÈXnjt Ú≡ Ôô2

ÉXh Xh 6XJnǒ nNjÈXnjt Úk TXÜ I kǎŷl kXkñH

. ñ†āXJÈ

= ñt ĥ Hñ kññj

(ñt ĥ Hñ kXm

, ññeǎe

Ǧñb” e\ nXe rǎe

TñYÈXeXǎkmH

g” ññ kÜ’ T nǒ nÈXnjt Úk JXhóǎ Èxmñ Ôô2ñTXTǎkÜ’ T X \Ü\ kXñ

†āXJÈ

_ǎ Xhóǎ Èxmñ e Ôô2 TǎÜ e Xl nXNñ ĥ ĥ m ĥ TÜǎÜǎ \XññjH

--> [q0]--a--> (qa)

t ĥ Hñ kññj

ï ǎ Xhóǎ Èxmñ e Ôô2 TǎÜǎkññ ǎ \XññjkmñXH

--> (q0)

t ĥ Hñ kXm

, ǎ Xhóǎ Èxmñ e Ôô2 TǎÜǎkññ k e” eǎ \XññjH

--> [q0]

ñeǎe 🦄

1. $\text{A} \cup \text{X} \bar{\cup} \text{t} \text{X} \bar{\text{E}}_5 \cup \bar{\text{E}}_6 \hat{\text{n}} \bar{\text{m}} \bar{\text{x}} \bar{\text{e}} \text{t} \text{X} \check{\text{h}} \acute{\text{o}} \text{k} \bar{\text{m}} \bar{\text{t}} \text{X} \text{k} \text{h} \text{X} \hat{\text{O}} \hat{\text{o}} 2 \quad \backslash \backslash \text{X} \text{H} \bar{\text{e}} \text{n} \bar{\text{j}} \bar{\text{E}}_5 \quad \text{e} \text{l} \text{k} \text{h} \text{X} \hat{\text{O}} \hat{\text{o}} 2 \quad \backslash \backslash \text{X} \text{H} \bar{\text{e}} \text{n} \bar{\text{j}} \bar{\text{E}}_6 \hat{\text{n}} \text{s} \text{t}$
 2. $\text{I} \text{t} \text{X} \text{I} \text{X} \text{K} \text{K} \text{e} \hat{\text{O}} \hat{\text{o}} 2 \text{t} \bar{\text{U}} \bar{\text{a}} \bar{\text{U}} \text{K} \text{I} \text{n} \bar{\text{e}} \bar{\text{a}} \text{K} \bar{\text{m}} \bar{\text{x}} \acute{\text{o}} \bar{\text{e}} \bar{\text{a}} \text{e} \text{N} \bar{\text{d}} \bar{\text{u}} \text{k} \text{X} \text{m} \text{d}$

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R1 NFA:
    --> [q0]--?--> something something--> (qA1)
R2 NFA:
    --> [q0]--?--> something something--> (qA2)
COMBINED NFA:
    /--ε--> R1 NFA
    --> [q0]--|
    \--ε--> R2 NFA

```

1. **Đ** **X** **H** **T** **em** **h** **am** **"e** **"e** **X** **l** **X** **h** **j** **m** **n** **x** **e** **T** **X** **l** **e** **h** **a** **qA1** **e** **qA2** **e** **"e** **đ**
l **X** **h** **j** **e** **l** **X** **n** **X** **h** **đ** **e** **X** **n** **X** **n** **h** **n** **x** **m** **e** **T** **h** **k** **n** **p** **đ** **l** **X** **h** **j** **m** **X** **H**

COMBINED NFA:

$$\begin{array}{c} \text{---> } [q_0] \text{---} \left| \begin{array}{l} \text{ /--}\epsilon\text{--> R1 NFA --}\epsilon\text{--} \backslash \\ \backslash\text{--}\epsilon\text{--> R2 NFA --}\epsilon\text{--} / \end{array} \right| \text{---> } (q_A) \end{array}$$

b" e\ nXe nã' e 🐱

n kæn jĕ⁵ ɛl ě⁶ Njĕ ĥ 6" t XŋT X mæ X nŭ' kX ĥ l ũæ X k Njĕ T k' H

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R1 NFA:
    --> [q01]--?--> something something--> (qA1)
R2 NFA:
    --> [q02]--?--> something something--> (qA2)
```

Y Xh æ qA1 e" eđ \\X:hənj:ruək nă X:ăk X:hoăk In̩ ɛl ăm H: ưl 'l̥z 'l̥z ruək m̩nXruək
gă H: 5

COMBINED NFA:

→ [q01] → ? → R1 → [qA1] → ε → [q02] → R2 → (qA2)

YËXxX k m H★

Y X Ū t X Ǟ k m Ę 5 n ǻ k n ǻ X k m Ĥ k ố ẹ H ỉ ” H X H n ǻ ẹ i n

$$\rightarrow [q1] \rightarrow ? \rightarrow \text{stuff} \rightarrow (qA)$$
$$\begin{array}{ccccccc} & & & & v & \text{-----} & \varepsilon & \text{-----} & \backslash \\ \rightarrow & [q_0] & \text{--}\varepsilon\text{--}\rightarrow & [q_1] & \text{--?--}\rightarrow & \text{stuff} & \text{--}\rightarrow & [q_A] & \text{--}\varepsilon\text{--}\rightarrow & (q_{ACC}) \\ & & & & \backslash & \text{-----} & \varepsilon & \text{-----} & \wedge \end{array}$$

- Kṭ" ǣm nX eXṭ ṽXhǣnjkmX
 - ' eXNṽh" È ṽXhǣnjkmX
 - ' eXNṽh eXṭ ǣǣǣ ÈkmX
- Kṭ" ǣm nX" È ǣǣǣ ÈkmX
 - ' eXNṽh" È ṽXhǣnjkmX
 - ' eXNṽh eXṭ ǣǣǣ ÈkmX



Ô" T nũ mT Xn X\ "t X X X \ ũ kũ\ kX kT X Ũ t X H t X ẽ nũ n EX n Ũ ≡ Ô ô 2 n

b Ę kǒЖ

[illegible]

Y U ml " T X T em' o' H N E km m k m E" a d Y X a T m n' e e 6X H a' N m k n g a l X a k N E k m m k n T X E" T em' o' H X T N E E km m k m' u d 6X N E E km m k a n X H X k H l r a X h l U e X k n

- o' n l i h k i g h k i ∈ e s " l e o n H e o s 2 O k k ∈ o s f
- K U X N l m w m b a k e r p O k n k T U m n a k m b a e a n X k l r a e B
- A X o k X l e n E m T X T" o E 6X k U' T a n j r w n X n p E E e n p n X k J X l E k X l o e l X l L A i n

b E k o J X E H H X H a k K 6 E X

o h n	n e a e	b" e l m	g m H	b" h H X h X e m r a e	a n X k l r a e	E X l X k E
o g t	✓	✓	✓	✓	✓	✓
b o t	✓	✓	✓	✗	✗	✓