

Re: pumping lemma for CFL

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- *From:* "robm" <[not@xxxxxxxx](mailto:robm@xxxxxxxx)>
 - *Date:* Wed, 02 Nov 2005 20:19:39 GMT
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"Robert Low" <mtx014@xxxxxxxxxxxxxxxx> wrote in message
news:3ssk38Fpv5seU1@xxxxxxxxxxxxxxxx

> Brian wrote:

>> The "basic" version of the pumping lemma goes more or less like this:
>> If some language L is regular, then there is some number p (pumping
>> length), where you can take any string in L of at least length p and
>> divide it into three strings: x, y, and z, where y is not empty. Then,
you

>> can "repeat" or "pump" y up as many times as you want (≥ 0) and the
>> resulting string is in L.

>

> This is the pumping lemma for regular languages. The pumping
> lemma for context free languages is a little more complicated,
> and says that L is context free, there there is some number
> p such that a string longer than p is uvwxy where $|vwx|$
> is no longer than p, and v and x can be repeated as many times
> as you want and the result is in L.

>

> Note that v and x must both be repeated the same number
> of times: you know that uvvwxy and uvvwxxxy are in L,
> but you don't know about uvvwxxxy.

which underscores my difficulty in trying to intuit from what i am reading

.

- *Follow-Ups:*
 - ◆ [*Re: pumping lemma for CFL*](#)
◇ *From:* Robert Low
- *References:*
 - ◆ [*pumping lemma for CFL*](#)
◇ *From:* robm
 - ◆ [*Re: pumping lemma for CFL*](#)

Re: pumping lemma for CFL

◇ *From:* Brian

◆ ***Re: pumping lemma for CFL***

◇ *From:* Robert Low

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