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Input: state \boldsymbol{a}, n^{(X)}, n^{(Y)}, n^{(Z)}, intermediate CYK matrix \gamma emitProb \leftarrow 0; for each \boldsymbol{b}: \exists \, \boldsymbol{a} \to \boldsymbol{b} do \mid emitProb = max (emitProb, P\left(\boldsymbol{a} \to \boldsymbol{b}\right) \gamma_{\boldsymbol{b}}\left(n^{(X)}, n^{(Y)}, n^{(Z)}\right)); end for each \boldsymbol{b}: \exists \, \boldsymbol{a} \to \boldsymbol{l} \, \boldsymbol{b} \, \boldsymbol{r} do \mid if c_{in}\left(\boldsymbol{b}; n^{(X)}\right) \notin \mathscr{F}^{(X)} or c_{in}\left(\boldsymbol{b}; n^{(Y)}\right) \notin \mathscr{F}^{(Y)} or c_{in}\left(\boldsymbol{b}; n^{(Z)}\right) \notin \mathscr{F}^{(Z)} then next; emitProb = max (emitProb, P\left(\boldsymbol{a} \to \boldsymbol{l} \, \boldsymbol{b} \, \boldsymbol{r}\right) \gamma_{\boldsymbol{b}}\left(c_{in}\left(\boldsymbol{b}; n^{(X)}\right), c_{in}\left(\boldsymbol{b}; n^{(Y)}\right), c_{in}\left(\boldsymbol{b}; n^{(Z)}\right)\right)); end return emitProb;
```