Children are rushing to the theme park.

1. Complete the parse tree using forward + backward application. (N.B. you can handle SC vp, SC np as you would other primitive types.)
The toy that the boy wanted

2) Complete the derivation for this noun phrase (root will be NP) using rules of function application, composition and type raising.
3) Consider the following sentences (and any of your own) and suggest types (or a rule) to handle co-ordination.

\[
\begin{align*}
\text{Edward} & \quad \text{lined} & \quad \text{and} & \quad \text{breathed} & \quad \text{dinosaurs} \\
\text{NP} & \quad (S\text{-NP})/\text{NP} & \quad ? & \quad (S\text{-NP})/\text{NP} & \quad \text{NP}
\end{align*}
\]

\[
\begin{align*}
\text{Edward} & \quad \text{or} & \quad \text{George} & \quad \text{broke} & \quad \text{it} \\
\text{NP} & \quad ? & \quad \text{NP} & \quad (S\text{-NP})/\text{NP} & \quad \text{NP}
\end{align*}
\]

Now return to the video...
<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>NP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- they: NP
- can: NP
- (S\NP)/(S\NP)
- S\NP
- (S\NP)/NP
- fish: NP
- S\NP
- (S\NP)/NP

1. find all the parses for 'they can fish' using the CKY algorithm.
2. use CKY to find a CCQ parse for:
   - 'People I knew waited'
   - you will need to suggest categories for the words.