Announcements: webpage updated with no lecture days, references for yesterday; today.
Outline:
   Today (A): reinforce basic TAG concepts
   (B) break for assignment-related introductions and questions
   (C) feature-based TAGs: motivation - obligatory vs. disallowed modification
   formalism - inspired by adjunction “splitting a node”
   “idioms remind us of “nifty” semantics - from derivation tree

Next 1-2 lectures: some formal properties; parsing intuitions

1. In-class worked example

   Initial tree:

   Derivation tree:
   - $\text{appeared}$
   - $\text{drew}(1)$
   - $\text{rain}(2, 2)$
   - $\text{drew}(1)$
   - $\text{rain}(2, 2)$

   Given auxiliary tree:
   - $\text{appeared}$
   - $\text{drew}(1)$
   - $\text{rain}(2, 2)$

   (B) “upper right”
   - $\text{appeared}$
   - $\text{drew}(1)$
   - $\text{rain}(2, 2)$

   (C) “lower left”
   - $\text{drew}(1)$
   - $\text{rain}(2, 2)$

   - $\text{appeared}$
   - $\text{drew}(1)$
2. Exercise:

Initial tree

```
NP
  |    |  
  |    |   hands and hearts
  |    |
  |  COMS M' |
   |      |    hands, hearts
  |      |
```

Auxiliary tree

```
N
  |    |    idle
  |    |   N
   |      |    idle
```

What derived tree corresponds to this derivation tree?

```
NP
  |    |    hands, hearts
  |    |   idle
```

Put your answer here!

3. Sentential modifiers and sentence inversion

(a) witnesses saw a truck

(b) what do you think witnesses saw?

(c) what did Twitter say witnesses saw?

(d) what did witnesses saw

4. Idioms (fixed, non-compositional phrases)

(a) Frodo kicked the bucket = Frodo died? ✓

(b) Frodo kicked the blue bucket ≠ Frodo died

(c) Frodo kicked the proverbial bucket ≠ Frodo died?

5. Legal feature-based adjunction

Partial tree

```
X_t
  |    |  
  |    |   what the current features
  |    | below are.
```

```
X_t
  |    |  
  |    |   t
  |    |   from above, the tree
  |    |   wants to have features t
```

```
X_t
  |    |  
  |    |   X_t
  |    |   +
```

```
X_t
  |    |  
  |    |   X_br
  |    |   t
```

```
X_t
  |    |  
  |    |   t
  |    |   X_br
  |    |   t
  |    |   l'
```

```
X_t
  |    |  
  |    |   X_br
  |    |   t
  |    |   X_br
  |    |   t
  |    |   l'
```

```
X_t
  |    |  
  |    |   X_br
  |    |   t
  |    |   X_br
  |    |   l'
```

```
X_t
  |    |  
  |    |   X_br
  |    |   t
  |    |   X_br
  |    |   l'
  |    |   l'
```

```
X_t
  |    |  
  |    |   t
  |    |   X_br
  |    |   t
  |    |   l'
```