Organic Synthesis

Tips
1) Work Backwards
2) Make rxn maps
   ex)

- Alkyl Halide → Br → R • H → OH → 2° Alcohol
- Ketone → NaBH4 → PCC
- Aldehyde → R → Hg2O or Hg2(C2H3O2)2/H2O (2) NaBH4
- Ester → R → H
- Alkene

3) Identify pieces and put it all together

Problem

1) NacN
   Acetone

2) H2O
   CN

3) Br2, Trace p
   COOH

4) NO2CN/acetone
   COOH

5) COOH
   H2O

6) LiAlH4, Et2O
   COOH
Q: How do you answer a question that you don't know the answer to?
A: 1) Redirect them to another resource. 2) If you can look it up and help them later.

Q: How do you work on synthesis w/a tutee w/o giving away answer?
A: Ask them leading questions, try to get them to find point A and point B for themselves.

Questions to ask

• When they are wrong about a step, ask them if there are side products or if anything else would happen w/ this step.

• Narrow down to 50/50 and ask them which one it is. Along with a why response to make sure they're not guessing.