Chem 109 C

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**PRACTICE PROBLEM** Heptadecanoic, or margaric acid is a saturated fatty acid found in the fat and milkfat of ruminants. Its complete metabolism gives 7 equivalents of acetyl-CoA and one equivalent of propionyl-CoA.

Metabolism of propionyl-CoA includes two reactions giving succinyl-CoA, which is a citric cycle intermediate. Identify the coenzyme required for each step.
PRACTICE PROBLEM What carbon atoms of glucose end up in ethanol under anaerobic conditions in yeast?
PRACTICE PROBLEM 26 When pyruvate is reduced by NADH to lactate, which hydrogen in lactate comes from NADH?
**PRACTICE PROBLEM** How many mols of ATP are produced from a complete metabolism, through all 4 cycles, of 1 mol the following molecules? How many mols of CO2?

- Sucrose, table sugar
  - $\alpha$-D-glucopyranosyl $\beta$-D-fructofuranose
  - FW 343.30

- Oleic acid
  - C18
  - FW 855.38

- Palmitic acid
  - C16

- Linolenic acid
  - C18

*a molecule in canola oil*