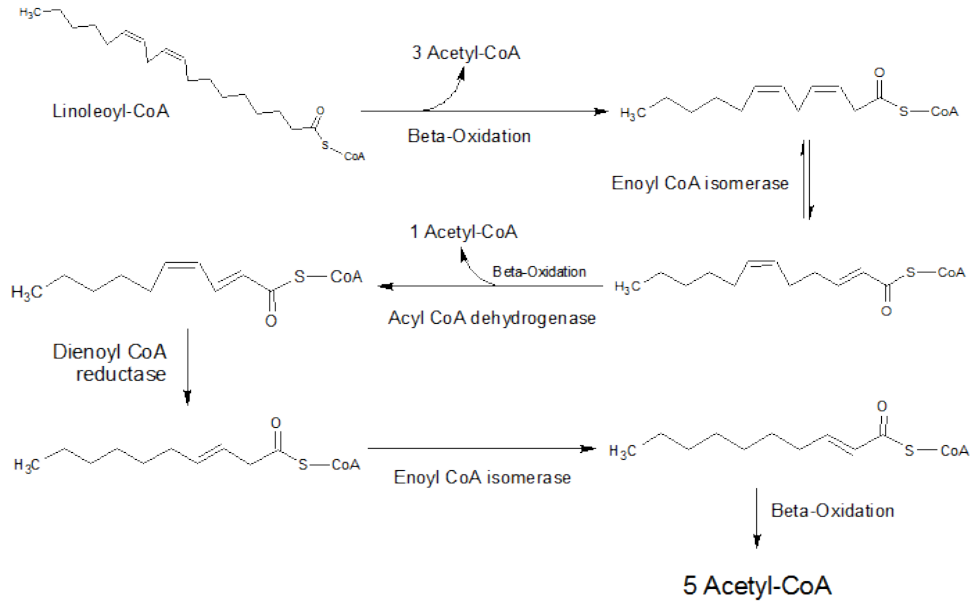## CONCEPT: FATTY ACID OXIDATION

● Unsaturated fatty acids use an isomerase to move the –ene if necessary; *trans* is ok, *cis* must be rearranged

  □ Will not generate $FADH_2$ from the oxidation of a point of unsaturation

  □ Multiple points of unsaturation may prevent rearrangement by isomerase

    - NADPH is used to reduce –ene if isomerase can't rearrange the double bond

● Odd numbered fats generate acetyl-CoA and propionyl-CoA (3 carbons) in the last round of ß-oxidation

  □ Add CO_2 to propionyl-CoA, then isomerase rearranges into succinyl-CoA (used in step 5 of TCA)
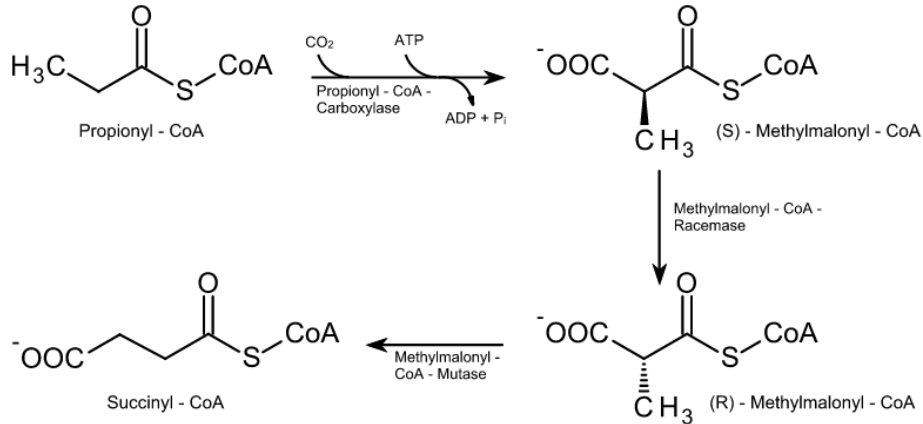
PRACTICE: How much ATP will the ß-oxidation of palmitic acid produce?

● ß-Oxidation

FADH₂: NADH:

● Citric Acid Cycle

FADH₂: NADH: