## Dr. Starkey, CHM 3140 Organic Chem. I, Cal Poly Pomona Chapter 9 Alkyne Reactions – Part 2 – <u>Practice Problems</u>

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Predict the products, provide a mechanism and determine direction of equilibrium. ARIO

carbide lamp: 
$$CaC_2 + H_2O \longrightarrow$$

3 Predict the major product formed after each set of reagents.



Which reagents would be best to achieve the following synthesis?



9.57 Each of the following synthetic transformations has a fatal flaw and the desired target molecule would not be produced. Identify the error in each synthesis and explain why the synthesis fails.

6 (Klein 4<sup>th</sup> ed.)

- 1) excess NaNH<sub>2</sub>
- 2) excess EtBr
- a.
- 3) excess H2, Pd

b.

- 1) NaNH<sub>2</sub>
- 2) MeI
- 3) H<sub>2</sub>, Lindlar's cat.
- 4) RCO<sub>3</sub>H

