Synthesis Set #1

As mentioned in lecture, there usually are a number of viable solutions to a synthesis problem. Concise syntheses that avoid product mixtures are preferred. Regio- and stereochemistry must be controlled where appropriate.

1.

$$H_{3}C$$
 CH_{3}
 $H_{3}C$
 $H_{2}Pd/BaSO_{4}$
 $quinoline$
 $H_{3}C$
 CH_{3}
 $H_{3}C$
 CH_{3}
 $H_{3}C$
 CH_{3}
 $H_{3}C$
 CH_{4}
 CH_{5}
 CH_{5}
 CH_{6}
 CH_{7}
 CH_{7}
 CH_{8}

2.

4.

$$(as above) \begin{picture}(200,0) \put(0,0){\line(1,0){100}} \put(0,0){\l$$