Give the reagents needed for the following syntheses: (includes chapters 15 & 16)

Ch. 15 1.

Ch. 15 2.

Ch. 15 3.

Ch. 16 4.

Ch. 15 5.

Ch. 10/16 6.

Toolkit:

nucleophiles

 electrophiles

\[ R-X \]

\[ R^+M^+ \ (M = Cu, Li, Mg) \]

\[ R^+P^2^- \ (wittig) \]