1. Do 20.1 on page 154 of Trefethen and Bau. Note that no pivoting is used here (i.e., no row swaps are ever performed, and so there is no permutation matrix $P$ involved). This condition is essentially telling you when you don't need to use any permutations.
2. Do 20.2 on page 154 of Trefethen and Bau.
3. Do 20.3 on page 154 of Trefethen and Bau.
4. Do 21.1 on page 161 of Trefethen and Bau.
5. Do 21.4 on page 161 of Trefethen and Bau.
6. Do 21.6 on page 162 of Trefethen and Bau.
7. Do 22.1 on page 171 of Trefethen and Bau.
8. Do 23.1 on page 177 of Trefethen and Bau.
9. Do 24.1 on page 188 of Trefethen and Bau.
10. Do 24.2 on page 189 of Trefethen and Bau.
