

This weeks problem set provides practice with the Gram-Schmidt process and adjoint operators. A question marked with a  $\dagger$  is difficult and probably too hard for an exam (though still illustrates a useful point). A question marked with a  $*$  is especially important.

1. From section 6.3, problems 1,  $2a$ ,  $3a$ ,  $c$ , 4, 6,  $8^*$ .
2. From section 6.4, problems 1,  $2a$ ,  $c$ ,  $d$ , 4, 9,  $12^*$ ,  $14^*$ ,  $16^\dagger$ , 17, 20.