

This weeks problem set focuses on the ideas of bases and linear transformations. 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 1.6, problems 1,  $2a$ ,  $e$ ,  $3a$ ,  $c$ , 4, 6, 14, 15,  $20^*$ , 26,  $28^\dagger$ , 33,  $34^*$ ,  $35^*$ .
2. From section 2.1, problems 1, 2, 5, 6,  $9^*$ , 14,  $14b$ .