

Chem. 540

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### Angular Momentum – Problem 1

Consider the angular momentum operators defined in class.

- a) Calculate the following commutators:  $[\hat{L}_+, \hat{L}_z]$ ,  $[\hat{L}_+, \hat{L}_-]$ , and  $[\hat{L}_+, \hat{L}^2]$ .
- b) Which of these angular momentum operators are hermitian?