Reduction of 3-Nitroacetophenone prelab

1. What IR frequency range would you expect to observe for the carbonyl of 3-nitroacetophenone?
2. What IR frequency ranges would you expect to observe for the nitro group of 3-nitroacetophenone? (See Mohrig, Technique 21)
3. If only 1-(3-nitrophenyl)ethanol forms, what would the theoretical yield be for the reaction? (Show work.)
4. If only 3-aminoacetophenone forms, what would the theoretical yield be for the reaction? (Show work.)
5. How many equivalents of hydride are in 70mg of sodium borohydride? Show your work.