Exercise Sheet #5

(Due October 11)

- 1. Kempf: Ex 4.3.6, 4.3.7, Read Section 4.4
- $2. \ \, \text{Hartshorne}, \, \text{Page 84: } 1.14, \, 1.15, \, 1.17, \, 1.18, \, 1.19, \, 1.21$
- 3. Hartshorne, Page 223: 4.4, 4.11.(Feel free to search the internet for proofs if you are exhausted).
- 4. Read about fine sheaves and the de-Rham theorem from Griffiths-Harris or Warner