

## Physics 451: Homework #18

Due Tuesday, Nov. 18, 5:00PM, 2008

4.27

4.28

4.29

4.30 Note:  $S_r \equiv \hat{r} \cdot \vec{S} = \hat{r} \cdot [\hat{x}S_x + \hat{y}S_y + \hat{z}S_z]$