## Homework 11

Due April 4th on paper at the beginning of class. Please let me know if you have a question or find a mistake. There are some hints on the second page.

Borthwick 10.5 and 10.6.

## Hints:

For 10.5, use the chain rule formula $\partial_{x_{j}}=\frac{x_{j}}{r} \partial_{r}$.
For 10.6, use the fact that if $u$ is radial, then $\Delta u=u^{\prime \prime}+\frac{2}{r} u^{\prime}$.

