

**Phys 402**  
**Spring 2019**  
**Homework 10**  
**Due Friday, May 3, 2019 @ 9 AM**

1. Griffiths, 2<sup>nd</sup> Edition, Problem 6.36 or Griffiths, 3<sup>rd</sup> Edition, Problem 7.45  
[back to perturbation theory – let's not forget it: Stark effect]
2. Griffiths, 2<sup>nd</sup> Edition, Problem 8.1 or Griffiths, 3<sup>rd</sup> Edition, Problem 9.1  
[WKB on 1D well with shelf]
3. Griffiths, 2<sup>nd</sup> Edition, Problem 8.3 or Griffiths, 3<sup>rd</sup> Edition, Problem 9.3  
[Tunneling]
4. Griffiths, 2<sup>nd</sup> Edition, Problem 8.7 or Griffiths, 3<sup>rd</sup> Edition, Problem 9.8  
[Usage of connection formulae – careful with how the phases from the connection formulae are added – we know the exact solution of the quantum harmonic oscillator...]

**EXTRA**

- Griffiths, 2<sup>nd</sup> Edition, Problem 8.16 or Griffiths, 3<sup>rd</sup> Edition, Problem 9.18  
[Tunneling in the Stark effect]