

Chem 1410: HW # 7, assigned 11/1 Due 11/11

1. Q10.6

2. Q10.13

3. P10.5

4. P10.15

5. Consider the following, modified particle-in-the-box problem. The potential is infinite for $x < 0$ and $x > a$, but sloped and equal to $-ax$ in the interior of the box. Calculate the energy of the ground state using as the trial function

$$\psi = c_1 \sin(\pi x / a) + c_2 \sin(2\pi x / a).$$