1. Jackson Problem 5.3 (5 points)

2. Jackson Problem 5.13 (5 points)

**Homework Problem Due Dec. 3**

This problem is different from the others I have assigned so far in that I don’t know the answer, but it is relevant to my laboratory work. I will give full credit (12 points) for a good faith effort, regardless of whether you reach the “right” answer or not. See figure caption for details.

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**Figure 1**: This is a two-dimensional problem in electrostatics. A rectangle of width $a$ and height $h$ is bounded by four grounded conducting walls. A thin piece of material of width $w$ that is centered in the horizontal direction and is a distance $d$ above the bottom of the rectangle. This piece of material is held at a constant potential $V$. Find the potential at all points inside the rectangle.

*For students at USD and SDSU, this means you must have your solutions to your Dept. secretary (or Dr. Corwin) by the close of business (4:30 PM Mountain Time) on the due date.*