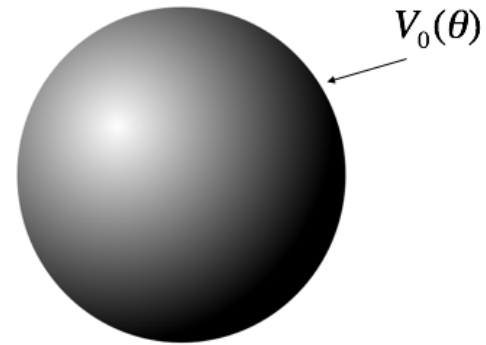


How many boundary conditions (on the potential V) do you use to find V inside the spherical plastic shell?

- A. 1
- B. 2
- C. 3
- D. 4
- E. It depends on $V_0(\theta)$





CaMPS

Physics GRE Study Sessions



- **Friday, October 19**
- **3-4 pm BPS 1400**
- Physics graduate students will explain the contents of the exam, provide study and test taking strategies, go over practice problems, and answer any specific questions you may have.
- In particular, we will go over problems from this practice exam: <https://tinyurl.com/y99dbgbm>
- Next session
 - Tuesday 10/23 3-4 pm BPS 1400
- Contact Alison Peisker with any questions (peiskera@msu.edu)

$$V(r, \theta) = \sum_{l=0}^{\infty} \left(A_l r^l + \frac{B_l}{r^{l+1}} \right) P_l(\cos \theta)$$

Suppose V on a spherical shell is:

$$V(R, \theta) = V_0 (1 + \cos^2 \theta)$$

Which terms do you expect to appear when finding $V(\text{inside})$?

- A. Many A_l terms (but no B_l 's)
- B. Many B_l terms (but no A_l 's)
- C. Just A_0 and A_2
- D. Just B_0 and B_2
- E. Something else!

$$V(r, \theta) = \sum_{l=0}^{\infty} \left(A_l r^l + \frac{B_l}{r^{l+1}} \right) P_l(\cos \theta)$$

Suppose V on a spherical shell is:

$$V(R, \theta) = V_0 (1 + \cos^2 \theta)$$

Which terms do you expect to appear when finding
V(outside)?

- A. Many A_l terms (but no B_l 's)
- B. Many B_l terms (but no A_l 's)
- C. Just A_0 and A_2
- D. Just B_0 and B_2
- E. Something else!