

Chapter 3 – 6, 8, 12, 13, 14, 18, 19, 24

The solution to Problem 23, which you will need for Problem 24, is

$$V(r, \phi) = a_o + b_o \ln r + \sum_{k=1}^{\infty} \left(a_k r^k + b_k \frac{1}{r^k} \right) (c_k \cos k\phi + d_k \sin k\phi)$$

Guidelines Please show all of your work and explain briefly the steps you take for your homework solutions, so that I can see how you went about solving the problems. For problems that require you to establish a coordinate system (origin and axes) please also include a sketch that shows your choice of origin and direction. Please try to turn in reasonably neat papers.

Chapter 3 – 6, 8, 12, 13, 14, 18, 19, 24

The solution to Problem 23, which you will need for Problem 24, is

$$V(r, \phi) = a_o + b_o \ln r + \sum_{k=1}^{\infty} \left(a_k r^k + b_k \frac{1}{r^k} \right) (c_k \cos k\phi + d_k \sin k\phi)$$

Guidelines Please show all of your work and explain briefly the steps you take for your homework solutions, so that I can see how you went about solving the problems. For problems that require you to establish a coordinate system (origin and axes) please also include a sketch that shows your choice of origin and direction. Please try to turn in reasonably neat papers.