

Due 1/27/2023, 10:30 a.m., before start of the class

Solve the following problems and staple your solutions to this cover sheet.

1. Classify the PDE $4u_{xx} + 12u_{xy} + 9u_{yy} - 2u_x + u = 0$ and write it in its canonical form.
2. Classify the PDE $u_{xx} + 2u_{xy} + 17u_{yy} = 0$ and write it in its canonical form.
3. Classify the PDE $2u_{xx} - 4u_{xy} - 6u_{yy} + u_x = 0$ and write it in its canonical form.
4. Sec 12.2 #2
5. Sec 12.2 #5(a)
6. Sec 12.2 #5(d)
7. Sec 12.2 #6
8. Sec 12.2 #7
9. Sec 12.6 #1(c)
10. Sec 12.6 #2