

Printed Name: _____.

PHYSICS 331 MISSION 6: MAGNETOSTATICS IN MATTER AND ELECTRODYNAMICS (38+2)PTS)
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Problems mentioned refer to David Griffith's *Introduction to Electrodynamics*, 5th edition. Skip two problems. Each problem worth 4pts.

Problem 54 Problem 6.1 (torque on loop)

Problem 55 Problem 6.8 (magnetization in matter)

Problem 56 Problem 6.12 (magnetic analog to that electric displacement problem where we contrasted methods)

Problem 57 Problem 6.17 (magnetic field in wire with uniform $\mathcal{X}_m$ including analysis of bound currents)

Problem 58 Problem 7.14 (changing magnetic field generates voltage in fixed loop)

Problem 59 Problem 7.16 (solenoid, induced electric field in quasistatic approximation)

Problem 60 Problem 7.30 (energy stored in magnetic field of toroidal coil)

Problem 61 Problem 7.39 (show given pair of electric and magnetic fields solve Maxwell's Equations and find the current and charge density)

Problem 62 Problem 8.3 (energy in charging capacitor)

Problem 63 Problem 8.9 (stress energy tensor problem)

Problem 64 Problem 8.11 (angular momentum in electromagnetic fields and torque on sphere)

Problem 65 Problem 8.16 (cylindrical moving tube with charges, energy, momentum, power)