CALCULUS 2: TEST 2 REVIEW SHEET

- **Section 6.4 Arc Length**
  -Examples New Book p. 459 # 7,9,13 (Old Book p. 465 #5,7,9)
- **Section 6.5 Average Value of a Function**
  -Examples N.B. p. 463 #1,3,7 (O.B. p.469 #1, 4,5)
- **Section 6.6 Applications to Physics and Engineering**
  -Spring Problems (Know Hooke's Law and how to find Work Examples N.B. p. 473 # 5,7, and Spring Worksheet (O.B. p.479 #5,6,7)
  -Work to Pump Fluid from a Tank Examples N.B. p. 473 # 17,19,21 and Work Worksheet (O.B. p. 480 #15, 17 and examples from class)
  -Hydrostatic Force (Look at both worksheets on my webpage & the ex from class. Be able to do problems with circles, triangles, rectangles)
  -Work lifting ropes etc (Look at worksheet and examples from class)
  -Moments & Centers of Mass Examples N.B. p. 475 #45, 47,48 (O.B. p.481 #35,37, 38)
- **Section 7.1 Modeling with Differential Equations**
  -Examples N.B. p 498 #1,5,11 (O.B. p. 503 #1, 5, 11)
- **Section 7.2 Direction Fields and Euler's Method**
  -Examples N.B. p.506 # 1,3,5,11 (O.B. p. 511 #1, 3,5,11)
- **Section 7.3 Separable Equations**
  -Separable equations N.B. p. 514 # 1,3,13 (O.B. p. 519 # 1,3,10, 15)
  -Orthogonal Trajectories N.B. p. 514 # 29, 31, p. 548 # 9,10 (O.B. p. 519 #23,25 p. 552 # 9, 10)
  -Mixing Problems N.B. p. 515 # 45,48 and worksheet (O.B. p. 520 #35, 38)