**MATH 2043 RECOMMEDNDED HOMEWORK PROBLEMS PROBLEMS: FALL 2007**

# FOR DISRIBUTION

**TEXT:** Hass, Weir, Thomas, *University Calculus*, Pearson Education, Inc., 2007

SECTION 10.1: 1,3,5,13,15,17,35,37.41.43.45.47.49.51
SECTION 10.2: 1,2,3,5-13 odd, 17, 19, 21, 23 (IN PROBLEM 23 SKETCH $3\mathbf{u} - \mathbf{v}$ and $-\frac{1}{2}\mathbf{v}$), 25, 31, 33, 34
SECTION 10.3: 1-13 odd, 14, 17, 18, 24 and Chapter 10 Practice excercises (pp.658-659): 24 ( also find the value of $a$ so that $\mathbf{v}$ and $\mathbf{u}$ are othgonal
SECTION 10.4 1, 3, 5, 7, 15, 17, 19 (in problems 19 21 find the volume of the parallelpiped oly), and Chapter 10 Practice Exercises (pp. 658-659) 25
SECTION 10.5: 1-3, 5-7, 9, 10, 13, 15, 19, 21-25, 31, 53, 55, 65, 67
SECTION 11.1 :1-11 odd, 17, 19, 21, 26
SECTION 11.2: 1-5, 7, 9, 11, 13
SECTION 11.3: 1, 3, 57, 9, 12, 13 (In problem 13 find the length of the indicated portion of the curve only), 15
SECTIOIN 11.4: find $\mathbf{T}$ and $\kappa$ only in problems 1, 3, 9, 11
SECTION 12.1: 1-11 (a-c only), 29
SECTION 12.2: 1,3, 5, 21, 23, 27-29, 37-41 odd, 45, 47
SECTION 12.3: 2, 3-11 odd, 12-14, 16, 17, 23,25, 27, 29-31, 36, 42, 43, 46, 47, 51, 52
SECTION 12.4: 1, 3, 4, 8, 9, 11, 33-36, 47
SECTION 12.5: 3,4, 5, 13,15, 18, 19, 21, 23, 25
SECTION 12.6: 1, 3, 5 SECTION 12.7: 1,3 5, 17-19, 21, 23, 25, 26
SECTION 12.8: 2, 3-11 odd 17, 21, 23,25, 26
SECTION 13.1: 1, 3, 15 odd, 19-25 odd
SECTION 13.2: 1,3, 5, 7-122, 15-23 odd, 25, 27, 30, 31, 35, 37, 38
SECTION 13.3: 1, 3, 5, 7
SECTION 13.4: 1-15 odd, 23, 27, 32, 33
SECTION 13.5: 3-5 (just write down one iterated triple integral and evaluate it), 7-13 odd, 17m 19, 20, 23, 25, 26
SECTION 13.7: 1, 7,9, 11a, 15, 17, 21, 23, 27, 32a, 33, 37, 38, 49, 53, 57, and Chapter 13 Practice Exercises (pp.846-847): 32, 33 (Also, for problem 33 evaluate using cylindrical coordiates).
Convert to cylindrical coordiates and evaluate

1. $\int_{-2}^{2}\int_{0}^{\sqrt{4-x^2}}\int_{0}^{\sqrt{4-x^2-y^2}} z\sqrt{x^2+y^2+z^2}$
2. $\int_{-2}^{0}\int_{-\sqrt{4-x^2}}^{0}\int_{-\sqrt{4-x^2-y^2}}^{\sqrt{4-x^2-y^2}} z\sqrt{x^2+y^2+z^2}$
3. Evaluate $\int\int\int_{\mathbf{D}} e^{-x^2+y^2+z^2)^{3/2}} dV$ whe $bfD$ is the region that lies below the sphere $x^2+y^2+z^2=4$ and above $z=\sqrt{x^2+y^2}$.

SECTION 14.1: 9, 11, 13, 15
SECTION 14.2: 1-3, 7a, 9b, 11c, 13, 15, 17, 19 ,23
SECTION 14.3: 1,3, 7-21 odd, 24, 25, 29, 32
SECTION 14.4: 5, 7, 10, 11 (in Problems 5, 7, 11 find the counterclockwise circulation only), 15, 17, 19, 20
SECTION 14.5: 3,5, 9, 17, 20, 23, 26, 39, 41, 47
SECTION 14.6: 1, 3, 5, 7, 15, 17, 19
SECTION 14.7: 1, 3, 5, 6, 9-17 odd
SECTION 14.8: 5-7, 9, 11-13, 15, 17, 23