Practice Problems

For the exam, please look also look at the workshop problems and the problems done on board in class.

6.1 (Area between Two Curves)(review) $9, 12, 15, 17, 19, 29$

6.2 (Volumes, Average Value) $1, 2, 3, 5, 6, 9, 11, 13, 14, 42, 45, 46$

6.3 (Volumes of Solids of Revolution) $16, 17, 19, 23, 29, 30, 32, 35, 36, 37,$ **25, 27, 31**

6.4 (Method of Shells) **11**, $12, 13, 19, 20, 23, 26$

7.1 (Numerical Integration) $7, 8, 13, 14, 36, 37,$ **1 - 21 odd, 41**

7.2 (Integration by Parts) $9, 10, 23, 24, 53, 72,$ **7 - 27 odd, 35, 37**

7.3 (Trigonometric Integrals) $3, 4, 14, 15, 40, 41,$ **21, 23, 25, 27, 21, 33, 53**

7.4 (Trigonometric Substitutions) $13, 14, 23, 28, 35, 36,$ **17, 19, 21, 25, 29**

7.6 (Partial Fractions) $9, 10, 17, 18, 33, 36,$ **9 - 33 odd, 37, 39**

7.7 (Improper Integrals) $14, 19, 29, 32, 43, 44$

8.1 (Arc Length & Surface Area) $7, 8, 9, 10, 38, 39$

8.4 (Taylor Polynomials) $7, 8, 17, 18, 29, 30$

9.1 (Solving Differential Equations) $13, 14, 29, 30, 35, 36$

9.2 (Models) $3, 4, 8, 9, 15, 16$

9.3 (Graphical Methods) $2, 9$

10.1 (Infinite Sequences) $21, 22, 30, 39, 43, 46$

10.2 (Infinite Series) $9, 10, 15, 16, 28, 29$

10.3 (Series with Positive terms) $9, 10, 15, 16, 38, 39$

10.4 (Absolute and Conditional Convergence) $5, 6, 21, 22, 23, 26$

10.5 (Ratio Test, Root Test) $6, 11, 12, 13, 18, 23$

10.6 (Power Series) $6, 7, 19, 20, 31, 32$

10.7 (Taylor Series) $3, 4, 11, 12, 19, 20$

10.7 (More Taylor Series) $21, 22, 24, 25, 26, 41$

11.1 (Parametric Equationss) $7, 8, 19, 20, 21, 22$

11.2 (Arc Length and Speed) $3, 4, 13, 14, 20, 21$

11.3 (Polar Coordinates) $3, 4, 7, 8, 14, 15$

11.4 (Area and Arc Length in Polar Coordinates) $7, 8, 11, 12, 13, 14$