MAT 120

Practice Sheet for Integral Calculus

From Calculus by Howard Anton (10th Edition)

Week 1 to Week 4

5.2	15-22, 25, 27-31 Indefinite Integral
5.3	23-26, 31-38, 43-68 Integration by Substitution
5.4	27-30, 35-37 Riemann Sum
6.4	3, 5, 7, 27, 29 Length of a plane curve
6.5	1-8 Area of a Surface Revolution
7.2	10-35 Integration by parts
7.3	5, 7, 13, 19, 43, 44, 47 Integrating Trigonometric functions (Reduction Formula)
7.4	3, 5, 7, 19, 23, 27 Trigonometric substitution
7.5	1-34 Integrating rational functions by partial fractions
7.8	1(d), 5, 7, 19, 27, $\int_{-\infty}^{+\infty} x^3 \, dx$, $\int_{3}^{4} \frac{1}{(x-3)^2} \, dx$, $\int_{0}^{\pi/6} \frac{\cos x}{\sqrt{1-2\sin x}} \, dx$ Improper Integral