

MAC2312 Calculus 2 Homework Problems  
Falzone Fall 2013 Briggs/Cochran Calculus Early Transcendentals 1st edition

| <b>HOMEWORK 1 – Chapter 6</b> |   |
|-------------------------------|---|
| Review                        | Find Area – dx vs. dy Worksheet                                 |
| 6.1                           | 1, 7, 9, 11, 13, 21, 23, 25, 31, 39, 43                         |
| 6.2                           | 5, 7, 9, 15, 16calc, 21, 23, 24, 27, 29, 31, 37, 39, 47, 53, 55 |
| 6.3                           | 7, 9, 15, 17, 19, 23, 25, 27calc, 31, 33, 37, 52                |
| 6.4                           | 5, 7, 11, 13, 17, 19, 27, 33, 39, 53                            |
| 6.5                           | 5, 7, 9, 11, 15, 17, 21, 25, 31                                 |
| 6.6                           | 9, 11, 17, 19, 23, 25, 26 to top, 30, 31, 33                    |
| 6.7                           | 7, 14, 15, 17, 19, 23, 33, 39, 47                               |
| 6.8                           | None  |

| <b>HOMEWORK 2 – Chapter 7</b> |  |
|-------------------------------|--|
| 7.1                           | 7, 9, 11, 13, 15, 17, 21, 23, 27, 29, 31, 33, 37, 54, 59   |
| 7.2                           | 9, 11, 13, 15, 17, 19, 21, 25, 29, 40, 44, [see 52, 53 & 54]                                       |
| 7.3                           | 7, 9, 11, 13, 15, 17, 21, 23, 27, 31, 41, 49, 51   |
| 7.4                           | 5, 9, 13, 21, 23, 31, 34, 48, 51   |
| 7.5                           | 5, 9, 11, 13, 14, 21, 23, 33, 41, 49, 50, 53   |
| 7.6                           | Numerical Techniques of Integration: Worksheet 1 and Worksheet 2                                   |
| 7.7                           | 5, 7, 9, 13, 19, 21, 27, 29, 31, 35, 45, 49a, 52, 60   |
| 7.8                           | 9, 13, 17, 27, 29, 33 show your work   |
|                               | Integrate $\sin^n x$ , $\cos^n x$ , $\tan^n x$ for $n = 1, 2$ & $3$ using trig substitutions, etc. |
|                               | Integrate $\sec^n x$ for $n = 1, 2$ & $3$ using formulas   |

| <b>HOMEWORK 3 – Chapter 8</b> |  |
|-------------------------------|--|
| 8.1                           | 9, 10, 13, 17, 23, 25, 33, 37  |
| 8.2                           | 9, 11, 12, 15, 27, 29, 31, 33, 35, 39, 43, 51, 53, 55, 63              |
| 8.3                           | 7, 9, 10, 15, 17, 19, 21, 23, 25, 27, 29, 35, 37, 39, 41, 47, 49, 51   |
| 8.4                           | 9, 13, 15, 17, 19, 21, 23, 27, 31, 33, 44, 47, 48                      |
| 8.5                           | 9, 11, 13, 19, 21, 25, 27, 29, 33, 35, 43, 45, 47, 49, 57              |
| 8.6                           | 11, 15, 17, 21, 23, 25, 27, 29, 39, 41, 43                             |
| pg-586                        | 2, 3, 4, 5, 11, 12, 13, 14, 19, 21, 22, 23, 25, 27, 33, 37, 39, 41, 43 |

| <b>HOMEWORK 4 – Chapters 9 &amp; 10</b> |  |
|---|--|
| 9.1                                     | 3, 7, 9, 11, 13, 17, 21, 25, 27, 29, 41, 43, 49, 59  |
| 9.2                                     | 9, 11, 13, 15, 21, 23, 27, 29, 33, 39, 41, 46, 47, 48, 49, 54, 55  |
| 9.3                                     | 9, 11, 23, 25, 27, 29, 31, 41, 43, 52, 53, 61, 71, 72a   |
| 9.4                                     | 7, 9, 13   |
|   | Derive the Power Series Expansions of the following functions. Derive the Interval of Convergence for each. Start each function on a new page. Work is to be complete and neat.<br>$f(x) = e^x$ , $f(x) = \sin x$ , $f(x) = \cos x$ , $f(x) = 1/(1+x)$ |
| 10.1                                    | 7, 8, 9, 11, 13, 15, 17, 27, 31, 45, 47, 56, 88  |
| 10.2                                    | 9, 11, 13, 14, 15, 17, 19, 21, 23, 25, 27, 30, 31, 33, 35, 37, 39, 41, 49, 51, 53, 55, 68, 71  |
| 10.3                                    | Find $dy/dx$ [5, 7, 9, 11], 21, 22, 23, 24, 25, 26   |
| 10.4                                    | 13, 17, 27, 29, 31, 37, 38, 39, 40, 41, 42, 43   |
| Pg 667-8                                | 2, 10, 18, 19, Graph [22-27], 28   |