Suggested homework exercises from Calculus: Early Transcendentals 3 ${ }^{\text {rd }}$ edition by Briggs, Cochran Gillett

| Section |  | Recommended problems (odds unless stated otherwise) |
| :---: | :---: | :---: |
|  | Limits and Continuity |  |
| 2.1 | The Idea of Limits | 7, 9, 15 |
| 2.2 | Definitions of Limits | $3-7,13,17-23,29,31,33,37,41,45,47$ |
| 2.3 | Techniques for Computing Limits | 5-35, 39-43, 47-55, 59-75, 87, 89, 97 |
| 2.4 | Infinite Limits | 15-41, 45, 47, 53 |
| 2.5 | Limits at Infinity | 9-63, 69-77, 87 |
| 2.6 | Continuity | 5, 7, 17-65, 69, 71, 83-87, 97, 99, 104 |
| 2.7 | Precise Definitions of Limits | 9, 11, 155, 19-25, 29, 31, 49, 51 |
|  | Derivatives |  |
| 3.1 | Introducing the Derivative | 9-21, 25, 29, $33-41,49,57$ |
| 3.2 | Working with Derivatives | $7,8,15,19,21,25,27,35,37,45$ |
| 3.3 | Rules for Differentiation | 9, 11, 19-37, 47-51, 57-63, 69, 73, 75 |
| 3.4 | The Product and Quotient Rules | 15, 19-33, 45-53, 61, 63, 69, 71, 73, 79, 81 |
| 3.5 | Derivatives of Trig Functions | 11-19, 23-49 every other odd, 57-65, 73 |
| 3.6 | Derivatives as Rates of Change | 15, 17, 19, 23, 31 |
| 3.7 | The Chain Rule | 15-55, $63-73,77$ |
| 3.8 | Implicit Differentiation | 13-37 every other odd, 49 |
| 3.9 | Derivatives of Logs and Exponentials | 15-47 every other odd, 49-55, 63-83 every other odd, 87, 91 |
| 3.10 | Derivatives of Inverse Trig Functions | 13-41 every other odd, 45a, 47, 49, 59 |
| 3.11 | Related Rates | $5,7,9,11,13,15,19,29,41,43$ |
|  | Applications of the Derivative |  |
| 4.1 | Maxima and Minima | 11-23, 27-43 every other odd, 45-49, 53, 57, 61,65, 73, 77 |
| 4.2 | Mean Value Theorem | 3, 11-17, 21, 25, 31, 33 |
| 4.3 | What Derivatives Tell Us | $\begin{aligned} & 3,5,6,9,11,15,19,21,25,29,33,35,39,43,45,49,53,55, \\ & 59,61,63,67,71,75,77,81,85,89,99 \end{aligned}$ |
| 4.4 | Graphing Functions | $7,8,9,13,15,17,19,23,25,27,29,31,33,37,41,43$ |
| 4.5 | Optimization Problems | 5-19, 27a, 35 |
| 4.6 | Linear Approx. and Differentials | 19, 21, 25, 29, 33, 61, 63 |
| 4.7 | L'Hopital's Rule | 17-65, 77, 79, 81, 83, 87, 91, 105, 119 |
| 4.9 | Antiderivatives | 11-81, 91, 97, 111, 113, 119, 121 |
|  | Integration |  |
| 5.1 | Approx. Area Under Curves | 11, 13, 17, 23-27, 33, 39, 41, 43, 47, 49 |
| 5.2 | Definite Integrals | 23,27, 33-65,79-85 |
| 5.3 | Fundamental Theorem of Calculus | 13, 23-61, 67, 69, 73, 77, |
| 5.4 | Working with Integrals | 11-31, 39, 45 a,b,c |
| 5.5 | Substitution Rule | 17-73, 79 -87, 91, 95, 97 |
| 6.2 | Regions Between Curves | $1,3,9,11,15-29,37-43,49,55,63,65,67$ |

