Start each new section on a separate paper. Show work to justify your answers. When asked to graph, include a sketch of the graph on your paper.

Ch. 2 Topics Covered: Using first derivatives to determine increasing, decreasing and extrema, using second derivatives to determine concavity and extrema. Sketching rational and polynomial functions. Finding absolute extrema. Optimization problems; economics, business and general applications. Elasticity of demand, implicit differentiation and related rates.

| Section | Problems: | Questions?? |
| :--- | :--- | :--- |
| 2.1 | $1,7,9,15,19,20,25,29,69,73,75,77,79,85,87$, <br> $88,101,105$ |  |
| 2.2 | $1,5,9,11,15,19,23,27,35,43,47,50,51,53,61,75$, <br> 78 |  |
| 2.3 | $1,5,11,13,17,21,25,31,37,45,49,51,57,59,60,61$ |  |
| 2.4 | $3,5,7,17,21,25,27,28,51,57,61,65,67,73,97,99$, <br> 102,103 |  |
| 2.5 | $11,13,15,16,23,25,27,29,30,31,32,33,37,43,44$, <br> $45,47,115$ |  |
| 2.6 | $1,3,5,7,17,19$, |  |
| 2.7 | $1,3,5,7,11,12,13,14$ |  |
| 2.8 | $1,3,5,7,9,11,15,17,23,25,29,33,35,37$ |  |
|  |  |  |

Ch. 3 Topics Covered: Finding derivatives of Logarithms and exponentials. Applications including; present value, growth \& decay.

| Section | Problems: | Questions?? |
| :--- | :--- | :--- |
| 3.1 | $11-39$ odd, $43,45,47,51,81,83,85,87$ |  |
| 3.2 | $1-19$ odd, $49,51,53,57-63$ odd $, 67,71,77,79,81$, <br> $89,91,93,101,103$, |  |
| 3.3 | Worksheet |  |
| 3.4 | $24,25,26,27,29,30,31,45,47$ |  |
| 3.5 | T.B.A. |  |
|  |  |  |

Ch. 4 Topics Covered: Anti-derivative rules, Definite and Indefinite integrals. Finding area under curves and bounded by curves. Integration techniques.

| Section | Problems: | Questions?? |
| :--- | :--- | :--- |
| 4.1 | $1-43$ odd, $47,49,51,57,61,63,65,67,69$ |  |
| 4.2 | $1,3,5,9,17,25,27$ |  |
| 4.3 | $1-11$ odd, $15,17,19,23,25,27,31,35,43,47,53,55$, <br> $59,61,63$ |  |
| 4.4 | $7,11,13,15,17,21,27,35,37,39,47,53,55$ |  |
| 4.5 | $1,3,5,9,11,15,25,29,43,45,49$ |  |
| 4.7 | $1,3,5,13,17,21,23,27$ |  |

Ch. 5 Topics Covered: Applications of Integration including: Consumers and producers surplus, future value, accumulated present value, capital value. Improper Integrals, differential equations and probability density functions.

| Section | Problems: | Questions?? |
| :--- | :--- | :--- |
| 5.1 | $1,3,7,11,15,21$ |  |
| 5.2 | $1-13$ odd, $17,21,23,25,26,27,29,31,33,35,37,39$ |  |
| 5.3 | $1,3,5,7,11,13,29,31,33,35$ |  |
| 5.4 | $25,26,27,31,32,35,36,37,39$ |  |
|  |  |  |
| 5.7 | $1,3,5,7,9,23,25,31,35,37,39$ |  |

Ch. 6 Topics Covered: Functions of several variables. Finding partial derivatives. Determining maximum and minimum values using the D-test. Double Integrals.

| Section | Problems: | Questions?? |
| :--- | :--- | :--- |
| 6.1 | $1,3,5,9,11,1336,37,39,41$ |  |
| 6.2 | $1-13$ odd, $17,21,27,29,31,39,41$, |  |
| 6.3 | $1-9$ odd, $15,16,17,18$ |  |
|  |  |  |
| 6.6 | $1-15$ odd |  |
|  |  |  |

