

**BREAKDOWN OF CALCULUS BC TEST 1-1**  
**100 PTS NON-CALCULATOR**  
**WEDNESDAY, AUGUST 29 & THURSDAY, AUGUST 30**

**Review:** Page 91: 3, 5, 11-31 odd, 26, 30, 32, 39-48 all, 49-61 odd, 49-61 odd, 73-81 odd; Page 239: 53-60 all

| <b>Part I: Short Answer [50 pts × 1]</b>  | <b>Total Amount</b> | <b>Total Points</b> |
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| §1.3: Evaluating Limits Analytically<br><ul style="list-style-type: none"> <li>• Indeterminate Limits “zero over zero” through factoring</li> <li>• Rationalize the numerator limits “number over zero”</li> </ul> Examples: Page 91: 11-23 odd   | 6 questions         | 22 points           |
| §1.3a: Trigonometric Limits<br><ul style="list-style-type: none"> <li>• Apply trig functions to solve limits</li> <li>• “Squeeze” Theorem</li> </ul> Examples: Page 91: 25, 26, 27; KEY – 26) $\pi$   | 1 question          | 5 points            |
| §1.4: Continuity<br><ul style="list-style-type: none"> <li>• Apply the properties of continuity including compositions</li> <li>• Given a graph, identify the limit</li> <li>• Define and apply the intermediate value theorem</li> <li>• Squeeze Theorem</li> </ul> Examples: Page 91: 29-32 all; KEY – 30) $-12$ , 32) 36   | 2 questions         | 8 points            |
| §1.4A: One-Sided Limits<br><ul style="list-style-type: none"> <li>• Given a one-sided limit to solve</li> <li>• Given a piecewise function, solve for the variables</li> <li>• Establishing the difference of removable and non-removable discontinuities</li> </ul> Examples: Page 91: 39-48 all, 49-61 odd; KEY – 40) $\frac{1}{12}$ , 42) $-1$ , 44) 2, 46) 2, 48) DNE | 3 questions         | 9 points            |
| §1.5: Infinite Limits & §3.5: Limits at Infinity<br><ul style="list-style-type: none"> <li>• When given a limit to infinity, solve</li> <li>• Apply the rules such as S/B, B/S, and same exponent “Co”</li> </ul> Examples: Page 91: 73-81 odd, Page 239: 53-60 all; KEY: 54) $-4$ , 56) 0, 58) $\frac{1}{2}$ , 60) $+\infty$   | 3 questions         | 6 points            |
| <b>Part II: Multiple Choice [18 pts × 1.0417]</b>   | <b>Total Amount</b> | <b>Total Points</b> |
| §1.4: Removable Discontinuity   | 1 question          | 3 points            |
| §1.4A: Definition of Continuity   | 1 question          | 3 points            |
| §1.4: One-Sided Limits  | 1 question          | 3 points            |

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| §1.5 Infinite Limits             | 1 question | 3 points |
| §3.5: Infinite Limits            | 1 question | 3 points |
| §2.1: Definition of a Derivative | 1 question | 3 points |

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| <b><u>Spiral Review [6 pts × 1.0417]</u></b> | <b><u>Total Amount</u></b> | <b><u>Total Points</u></b> |
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| Summer Packet | 3 questions | 6 points |
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| <b><u>Part III: Free Response [16 pts × 1.5625]</u></b> | <b><u>Total Amount</u></b> | <b><u>Total Points</u></b> |
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| §1.3: Squeeze Theorem             | 1 question | 5 points |
| §1.4A: Continuity                 | 1 question | 6 points |
| §1.4B: Intermediate Value Theorem | 1 question | 4 points |