Homework Assignments
Math 141 – Calculus 1
Fall 2007

All homework is due at 4:30 PM on the day indicated. You should look at and work on *all* of the homework problems, however, only the underlined ones will be graded and commented on. The homework is meant to deepen your understanding of the course material. If you feel that you understand a non-underlined problem already, feel free to move on to the next one. By contrast, if you are stuck on any problem, even one I have not assigned, please ask about it during my office hours. On all problems, you are encouraged to use technology when you feel it is appropriate.

Homework due Friday, August 31:
1. Fill out Part 1 of the Knowledge Survey at
    http://www.willamette.edu/~jlaison/calc1_knowledge_survey.html
2. Come by to meet me in my office.

Homework due Wednesday, September 5:
Read Sections 1.1 and 1.3.
Complete these problems in Section 1.1: 1, **2**, **5**, **6**, 7, 13, **22**, 23–26, **38ab**
Complete these problems in Section 1.3: 1, 3, **6**, 7, 11, **12**, **13**, **15abcg**, **16abcg**

Homework due Friday, September 7:
Complete these problems in Section 1.2: **4**, 21, **22**, **28**, **35–40**, 57, **58**
Complete these problems in Appendix B: 2, 3, 29, 30
Complete these problems in Appendix C: 3, 21–25

No Homework due Monday, September 10.

Homework due Wednesday, September 12:
Complete these problems in Appendix E: 9, **10**, 17, **18**, 29, **30**, 41, **42**, 43, **44**, 63, **64**
Complete these problems in Appendix F: 1, 3, **6**, **7**, 9, **10**, 13, **14**, 15, **16**, 19, **20**

Homework due Friday, September 14:
Read Section 1.4.
Complete these problems in Section 1.4: **40**, **41**, **42**, 43, 44, 45, **51**, **52**, **53**

Homework due Monday, September 17:
Read Section 1.5.
Complete these problems in Section 1.5: 1, **2**, 3, **4**, 27, **28**, **29**, **32**, 41

Homework due Wednesday, September 19:
Read Section 1.6.
Complete these problems in Section 1.6: 3, 7, 8, 21, **22**, 23, **24**, 25, **26**, 27, **28**, 29, **34**, **54**

Homework due Friday, September 21:

Read Section 1.7.
Complete these problems in Section 1.7: 3, 4, 15, **16**, 17, **18**, 19, **20**, **25**, **26**, 27, **30**, **31**

Homework due Monday, September 24:

Complete these problems in Section 1.6: **60-63**
Complete these problems in the Chapter 1 Review: **15**, 16-22, **35**, 36, 37, **38**, 39

No Homework due Wednesday, September 26.

Homework due Friday, September 28:

Read Section 2.3.
Complete these problems in Section 2.3: 13–26, **27–36**

Homework due Monday, October 1:

Group project #1 due today. Turn it in to me, not to the folder outside my office.
Read Section 4.2. Skip the part about l'Hôpital's rule.
Complete these problems in Section 2.3: 63, **64**, 65, **66**
Complete these problems in Section 4.2: **14**, 15, 17, **18**, **42**, **43**, 57, **58**

No Homework due Wednesday, October 3. Quiz #1 today!

Homework due Friday, October 5:

Complete these problems in Section 2.3: 49, **50**, 51, **52**, 53, **68**
Complete these problems in Section 4.2: 3, **4**, 47, **48**, 49, **50**
Additional Problem **1:** Explain the formal definition of limits in your own words.

Homework due Monday, October 8:

Read Section 2.1.
Complete these problems in Section 2.1: 8, 9, **10**, 11, **12**, **29**, **31**, 41, 42, **43**, 45, **46**

Homework due Wednesday, October 10:

Read Section 2.2.
Complete these problems in Section 2.2: **18**, 19, 23, **24**, **26**, 27, 31, **32**, 37, **38**, 49, **50**, 51, 59, 60, **66**

Homework due Friday, October 12:

Read Sections 2.4 and 2.6.
Complete these problems in Section 2.4: 21, **22**, 23, **24**, 29, **30**
Complete these problems in Section 2.6: 15, **16**, 21, **22**, 27, **28**, **52**

Homework due Monday, October 15:

Read Sections 2.7 and 3.1.
Complete these problems in Section 2.7: **8**, 9, 21, 37, **38**
Complete these problems in Section 3.1: 11, 13, 17, **18**, 23, **24**, 25, **26**, **42**, **49**, 50, 77

Homework due Wednesday, October 17:

Read Section 3.2.
Complete these problems in Section 3.2: 7, **<u>8</u>**, 11, **<u>12</u>**, 13, 19, **<u>20</u>**, 21, **<u>22</u>**, **<u>26</u>**, 27, 29, **<u>30</u>**, 31, 41, **<u>42</u>**

Homework due Monday, October 22:

Complete these problems in Section 3.5: 47, **<u>48</u>**, 49, **<u>50</u>**, 51, **<u>52</u>**, 53, **<u>54</u>**, 55, **<u>56</u>**, 57, **<u>58</u>**, 59

No Homework due Wednesday, October 24.

Homework due Friday, October 26:

Read Section 3.3.
Complete these problems in Section 3.3: **<u>9</u>**, **<u>10</u>**, 11, **<u>12</u>**, **<u>13</u>**, 14, 26, **<u>27</u>**
Complete these problems in Section 3.5: **<u>60</u>**, 61

Homework due Monday, October 29:

Read Section 2.5.
Complete these problems in Section 2.5: **<u>8</u>**, 9, 13, 23, **<u>24</u>**, **<u>28</u>**, 29, **<u>30</u>**, 31, **<u>32</u>**, 33, **<u>34</u>**, 35, **<u>46</u>**
(Note that 80 mph $\approx$ 117.33 ft/sec)

(Spooky) Homework due Wednesday, October 31:

Complete these problems in Section 2.5: **<u>41</u>**, **<u>42</u>**, 43, 44, **<u>45</u>**, **<u>47</u>**
Complete these problems in Section 2.6: 47, **<u>55</u>**, 57, **<u>63</u>**, 65
Complete these problems in Section 2.7: 14, **<u>15</u>**

No Homework due Friday, November 2. Quiz #2 today!

Homework due Monday, November 5:

Complete these problems in Section 4.1: 22, **<u>23</u>**, 24, 25, **<u>26</u>**, 27, **<u>28</u>**

No Homework due Wednesday, November 7 (group project #2 in class Monday.)

Homework due Friday, November 9:

Read Section 4.3.
Complete these problems in Section 4.3: 11, 12, 18
Complete these problems from the optimization handout from class: **<u>1</u>**, **<u>2</u>**, **<u>3</u>**, **<u>4</u>**

Homework due Monday, November 12:

Complete these problems in Section 4.3: 22, 30
Complete these problems from the optimization handout from class: **<u>5</u>**, **<u>6</u>**, **<u>7</u>**, **<u>8</u>**, **<u>9</u>**

Homework due Wednesday, November 14:

Read Section 4.7.
Complete these problems in Section 4.7: 13, **<u>14</u>**, 16, **<u>17</u>**, 23, **<u>24</u>**, 25, **<u>26</u>**, **<u>32</u>**, **<u>33</u>**, **<u>34</u>**, 35

Homework due Friday, November 16:

Read Section 4.8.
Complete these problems in Section 4.8: 11, **<u>12</u>**, **<u>13</u>**, 14, **<u>15</u>**, 18, **<u>22-25</u>**, 26

Homework due Monday, November 19:
Read Section 4.9.
Complete these problems in Section 4.9: **20**, 21, **23**, **24**, 25, 26, **27**, **28**, **33**

Homework due Wednesday, November 21:
Read Section 5.1.
Complete these problems in Section 5.1: 1, **2**, 3, **4**, 5, **6**, 7, **9**, 19, 33, **34**, 35, 37, **38**, 41, **42**

Homework due Monday, November 26:
Read Section 4.4.
Complete these problems in Section 4.4: 3, 9, 10, **12**, 13, **15**, **19**, **20ab**

No Homework due Wednesday, November 28. Quiz #3 today!

No Homework due Friday, November 30 (group project #3 in class Monday.)

Homework due Monday, December 3:
Read Section 5.2.
Complete these problems in Section 5.2: 3, **4**, **5**, 7, **8**, 21, **22**, 23, **24**, 25, **26**, 27

Homework due Wednesday, December 5:
Read Section 5.3.
Complete these problems in Section 5.3: **20**, 21, 22, 23, **26**, 35, **36**, 37, **38**, 43, **44**, **52**, **54**, **64**

No Homework due Friday, December 7.

Final exam for Section 2 (class meetings 9:10-10:10) Tuesday December 11 8:00-11:00

Final exam for Section 3 (class meetings 10:20-11:20) Monday December 10 8:00-11:00