Math 205 Summer 2016
Syllabus

Practice problems

Week 1a **1.1:** 7^s, 9, 11
1.2: 7^s, 9, 11, 16
1.3: 9, 12, 13^s
1.4: 3, 5, 6, 7^s, 13, 19^s
1.5: 1, 2, 3^s, 15
1.6: 3, 5, 7, 9^s, 12, 13^s, 15, 17^s

Week 1b **1.7:** 1, 3^s, 5, 6
2.1: 10, 11, 15^s, 17
2.2: 1, 3, 9^s, 11, 13, 15^s
2.3: 1^s, 3, 5, 7, 9^s

Week 2a **2.4:** 9, 11^s, 13, 15^s, 17, 21, 23^s, 25^s
2.5: 3, 5, 7, 9^s, 11, 13, 15, 17, 19^s, 33, 35, 37^s, 47^s
2.6: 4, 9^s, 10, 11^s, 14, 18, 19, 21^s

Week 2b **3.1:** 9, 11^s, 13, 17
3.2: 3, 9^s, 11, 15^s
3.3: 11^s, 13, 15^s, 19
3.4: 1, 3^s, 5, 7, 8
4.1: 1, 3^s

Week 3a **4.2:** 3, 4, 5^s
4.3: 3, 5, 6, 13^s, 15, 18, 20, 21^s
4.4: 1, 5, 7, 9^s, 11, 13, 15^s, 23^s

Week 3b **4.5:** 1, 3, 5, 7^s, 9^s, 29^s
4.6: 2, 3^s, 4, 5^s, 9, 11, 13^s, 14, 21^s, 22

Week 4a **4.8:** 3, 7^s, 9
4.9: 3, 4, 9^s, 11
5.1: 1^s, 3^s, 11, 17^s, 23^s, 24, 25
5.3: 1, 3^s, 5^s, 7, 8, 9
5.4: 1^s, 3^s, 5, 9, 10 ,11^s, 25, 27

Week 4b **5.6:** 1, 9^s, 11, 13^s, 15^s, 17, 19^s, 23^s
5.7: 1, 3, 4, 5^s, 7, 9, 13^s, 15, 20, 21^s, 23, 25^s
5.8: 1^s, 3^s, 7^s, 9, 12, 13

Week 5a **6.1:** 7, 9, 20, 21^s
6.2: 5, 6, 7, 8, 9, 10, 11, 13^s, 15, 19^s, 20, 21, 23^s, 29, 30, 31, 33^s
6.3: 17, 19^s, 21^s, 27^s, 29, 31^s, 33
6.5: 5, 7, 9^s, 23^s

Week 5b **6.6:** 1^s, 4
7.1: 15, 17^s
7.4: 1^s, 2, 3^s, 4, 5, 6, 9^s, 13, 17, 19^s

Week 6a **7.6:** 1^s, 2, 3^s, 4

Note the following information on some of the practice problems problems:
Section 5.8: In problem 8, the characteristic polynomial is $-\lambda^2(\lambda-3)$, and in problem 13, the characteristic polynomial is $-(\lambda-2)^2(\lambda-1)$.
Section 6.3: In problem 29, $D^3-2D^2-D+2=(D-1)(D+1)(D-2)$, and in problem 30, $D^3-3D^2-16D+48=(D+4)(D-4)(D-3)$.
Section 7.4: In problem 12, the characteristic polynomial is $-(\lambda-2)^2(\lambda+1)$, in problem 13, the characteristic polynomial is $-\lambda^2(\lambda-4)$, and in problem 18 the characteristic polynomial is $-\lambda(\lambda-2)(\lambda-4)$.

Also please note the following typo in the text. (There may be others, but this one was pointed out by a previous 205 student.) On page 499, displayed equation (6.6.3) is correct, but the equation that follows is not. Instead of reading $r^2+\frac{R}{L}r+\frac{1}{L}C=0$, it should read $r^2+\frac{R}{L}r+\frac{1}{LC}=0$.