

MATH/CS 307: Discrete Mathematics  
Spring 2016  
Problem List

| Section                         | Problems  | Due Date      |
|---------------------------------|---|---------------|
| 1.1                             | # 1,4,7,10,13,16,20,24,28,32,36,37,47,53,57,64,68,76,77,80,83,87  | Friday 22 Jan |
| 1.2                             | #1,7,10,12*,15*,16,19,22,25,28,33,36,39,40,42,44,45,55-59,66,67,74<br>*Give a proper negation of the proposition. That is, do not use some version of "It is not the case that..."  | Friday 29 Jan |
| 1.3                             | #1,3-8,11,12,13,16,19,21,24,27,30,31,34,43,44-49,52,53,59,68*,70,73<br><br><u>Problem A</u> : <b>SHOW</b> whether or not the propositions $P = p \wedge (q \vee r)$ and $Q = (p \wedge q) \vee (p \wedge r)$ are logically equivalent.<br><br>* For # 68, use the directions from Problem A. That is, it is <i>not sufficient</i> to simply <i>state</i> whether the two propositions are equivalent. You must give a sound explanation of your conclusion. | Friday 29 Jan |
| 1.4                             | # 1-5, 6,9,11-15,18,21,24   | Friday 29 Jan |
| 1.5                             | # 12-20,21,24,27,28,31,34,35,38,41,43,44,47,48,49-54,55*<br>*Only negate symbolically.<br>#’s 57-66 are amusing, but not required.  | Friday 5 Feb  |
| 1.6                             | #37-60,64-66*<br>*You don’t have to use the Logic Game to make your argument.   | Friday 5 Feb  |
| 2.1                             | #7,10,13,19,22,25,31,33,37  | Friday 12 Feb |
| 2.2                             | #3,4,6,19,22,30,41  | Friday 12 Feb |
| 2.4                             | #1-7,12,14,21,27  | Friday 12 Feb |
| 2.5                             | #1,2,6-10, 14, 16,19  | Monday 15 Feb |
| split between Test 1 and Test 2 |   |               |
| 3.1                             | #1,4,6,9,10,13,23,26,32,35,41,48,51,62,70   | Friday 26 Feb |
| 3.2                             | #4,6,8,10,12,17,19,39-50,51,59,67-73,83-86,91-94,117,120,129  | Friday 26 Feb |