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## Problem Set 2

**Assigned:** Feb. 1

**Due:** Feb. 8

### Problem 1

Translate the following sentences into CNF:

1.  $A \Rightarrow \neg(B \wedge C)$ .
2.  $C \Leftrightarrow \neg(D \vee E)$ .
3.  $D \Rightarrow B$ .
4.  $(D \wedge E) \Rightarrow \neg B \wedge A$ .
5.  $D \Leftrightarrow E$ .

### Problem 2

Show a trace of the running of the Davis-Putnam algorithm on the clauses that you have derived in problem 1. (You are looking for the set of all the clauses combined, not each sentence separately.) When you come to a choice point, choose the first unbound symbols in alphabetical order, and try the assignment to TRUE before the assignment to FALSE.