Problem Solving and Search in AI
Tutorial 5 (on June 23rd)

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Exercise 5.1:
Consider the following *crossword puzzle*, where a given list of words can be used
to fill the empty spaces.

1		2		3
#	#		#	
#	4		5	
6	#	7		
8				
	#	#		#

AFT   LASER
ALE   LEE
EEL   LINE
HEEL   SAILS
HIKE   SHEET
HOSES   STEER
KEEL   TIE
KNOT

a) Formalize the problem as a CSP and draw the *constraint graph*.

b) Reduce the domains of the variables by applying the constraint propaga-
   tion method *arc consistency*.

c) Is constraint propagation enough to solve the CSP? If not, use a search
   algorithm with forward checking and the degree heuristic.