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Question 1. Consider the problem of placing *k* knights on an *n x n* chessboard such that no two knights are attacking each other, where *k* is given *k <= n^2*. Formula a CSP **<V, C, D>** for this problem.

V = {K_1, K_2, K_3, K_4, … K_n} - n-variables for the position of each knight (it is only n variables because the position is nxn) K is the variable for each knight for 1<=K<=n
C = {C_1, C_2, C_3, C_4, C_5, C_6, C_7, C_8, C_9}For all variables A({x,y}), B({u,v}), then these are not allowed (This is the movement of the knights)
C_1 = (x=u+2 y=v+1)
C_2 = (x=u+1 y=v-2)
C_3 = (x=u-1 y=v+2)
C_4 = (x=u+2 y=v-1)
C_5 = (x=u+1 y=v+2)
C_6 = (x=u-1 y=v-2)
C_7 = (x=u-2 y=v-1)
C_8 = (x=u-2 y=v+1)
C_9 = Alldiff(K_1, K_2, K_3, K_4, … K_n)
D = {D_1, D_2, D_3, D_4, … D_n} where D = {1, 2, 3, 4, … n} for 1<=D<=n For every variable there is a {x,y} pair denoting location.