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given n : int
letting vertices be domain int(0..n-1)
given edges : relation (irreflexive) of ( vertices * vertices )
given numberColours : int(1..)
given coloursPerNode : int(1..)
letting colours be domain int(1..numberColours)
find colouring : relation (size n*coloursPerNode) of (vertices * colours)
such that
forAll (u,v) in edges .
    (forAll colourAssignment in colouring .
        (colourAssignment[1] = u) -> !((v,colourAssignment[2]) in colouring))
,
forAll u : vertices .
    coloursPerNode = (sum colourAssignment in colouring .
        toInt(colourAssignment[1] = u))

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