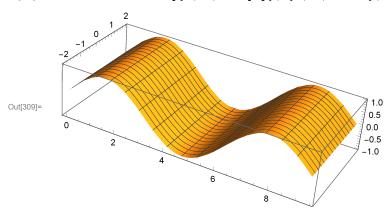
Counter example for Problem #3

 $\label{eq:local_local_local_local} $$ \ln[309] = $$ ParametricPlot3D[\{u,\,v,\,Sin[u]\},\,\{u,\,0\,,\,3*Pi\},\,\{v,\,-2\,,\,2\}]$$ $$ $$ ParametricPlot3D[\{u,\,v,\,Sin[u]\},\,\{u,\,0\,,\,3*Pi\},\,\{v,\,-2\,,\,2\}]$$ $$ ParametricPlot3D[\{u,\,v,\,Sin[u]\},\,\{u,\,0\,,\,3*Pi\},\,\{v,\,-2\,,\,2\}]$$ $$ ParametricPlot3D[\{u,\,v,\,Sin[u]\},\,\{u,\,0\,,\,3*Pi\},\,\{v,\,-2\,,\,2\}]$$ $$ ParametricPlot3D[\{u,\,v,\,Sin[u]\},\,\{u,\,0\,,\,3*Pi\},$



and the U-Curve (Holding V=Const.=1), looks like:

 $ln[313] = ParametricPlot3D[{u, 1, Cos[u]}, {u, 0, 2 * Pi}]$

