Hack the code, below to implement the problem assigned online.

```
with(plots) :
with(VectorCalculus) :
plotplane := implicitplot3d(x = 1, x = -5..5, y = -5..7, z = -50..25, axes = normal, style
    = surfacewireframe) : % :
g := (x, y) → 6 − x − x² − 2·y²
g(x, y)
g(1, 2)
plotfunc := plot3d(g, -5..5, -5..5, axes = normal, style = surfacewireframe, color = green) : % :
gx := D[1](g)
gy := D[2](g)
gtrace := g(1, y)
gtraceprime : diff (gtrace, y)
plottanline := SpaceCurve(⟨1, t + 2, -4 − 8·t⟩, t = -5..5, color = red, thickness = 3) : % :
plottrace := SpaceCurve(⟨1, t, 4 − 2·t²⟩, t = -5..5, color = blue, thickness = 3) : % :
plotthepoint := pointplot3d({[1, 2, -4]}, symbol = solidcircle, symbolsize = 20, color = black) : % :
display([plotfunc, plotplane, plottrace, plottanline, plotthepoint])
tanplane := (x, y) → gx(1, 2)·(x − 1) + gy(1, 2)·(y − 2) - 4
tanplaneplot := plot3d(tanplane, -5..5, -5..5, axes = normal, style = surfacewireframe) : % :
display([plotfunc, tanplaneplot, plottrace, plottanline, plotthepoint])
```