

```

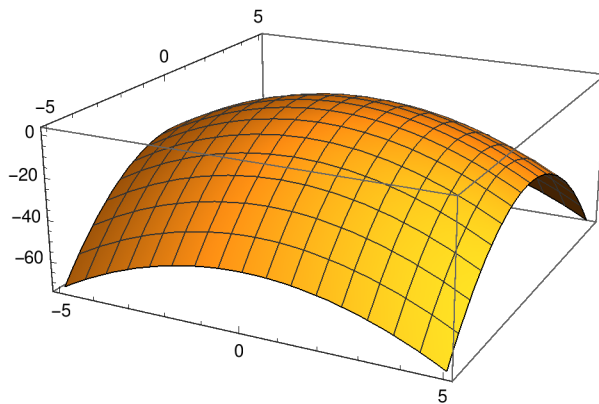
In[117]:= f = 2 - (x^2 + 2 y^2)
xmin = -5 ; xmax = 5 ;
ymin = -5 ; ymax = 5;
Gf = Grad[f, {x, y}] (* gradient of f *)
Plot3D[f, {x, xmin, xmax}, {y, ymin, ymax}]
cp = ContourPlot[f, {x, xmin, xmax}, {y, ymin, ymax}, ContourShading -> None];
vp = VectorPlot[Gf, {x, xmin, xmax}, {y, ymin, ymax}];
Show[{cp, vp}]

```

Out[117]= $2 - x^2 - 2 y^2$

Out[120]= $\{-2 x, -4 y\}$

Out[121]=



Out[124]=

