In[92]:=
```
(* We compute a surface integral of the scalar field z+x+
   2y on the portion of the plane 2x+2y+z=2 in the first octant *)
f = z + x + 2 y;
q = {u, v, 2 - 2 u - 2 v};
qu = D[q, u]
qv = D[q, v]
n = Simplify[Cross[qu, qv]]
nn = Simplify[Norm[n]]
for = f /. {x → q[[1]], y → q[[2]], z → q[[3]]}
Integrate[for nn , {v, 0, 1 - u}]
Integrate[%, {u, 0, 1}]
```

Out[94]=
$$\{1, 0, -2\}$$

Out[95]=
$$\{0, 1, -2\}$$

Out[96]=
$$\{2, 2, 1\}$$

Out[97]=
$$3$$

Out[98]=
$$2 - u$$

Out[99]=
$$3\,(1 - u)\,(2 - u)$$

Out[100]=
$$\frac{5}{2}$$

In[73]:=
```
ContourPlot3D[2 x + 2 y + z == 2, {x, 0, 1}, {y, 0, 1}, {z, 0, 2}]
```

Out[73]=