

Some examples:

Mathematica within TeXmacs

```
In[1]:= Print[Sin[x]]
      Sin[x]
```

```
      Sin[x]
      sin(x)
```

```
In[3]:= Sin[x]]
      Sin[x]
      Cos[x]
```

Syntax::sntxf: "Sin[x]" cannot be followed by "]".

```
Out[4]=sin(x)
```

```
Out[5]=cos(x)
```

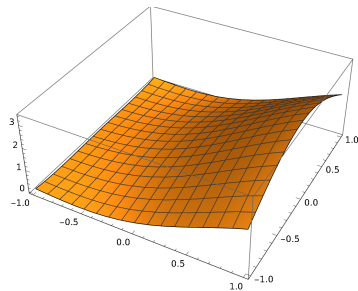
```
In[6]:= f[x_,y_]:=Sin[x]+Cos[y];
      {D[f[x,y],x], D[f[x,y],y]}
```

```
{cos(x), -sin(y)}
```

```
In[8]:= f[x,y]^2
```

```
(sin(x) + cos(y))^2
```

```
In[9]:= Plot3D[%,{x,-1,1},{y,-1,1}]
```



```
In[10]:= Plot3D[f[x,y],{x,-1,1},{y,-1,1}]
```

Syntax::sntxf: "Plot3D[f[x,y],x,-1,1,y,-1,1]" cannot be followed by "]".

```
In[11]:= Plot3D[f[x,y]]
```

Plot3D::argr: Plot3D called with 1 argument; 3 arguments are expected.

```
Plot3D[f(x,y)]
```

```
In[12]:=
```

So far, most basic operations you want Mathematica to do are implemented.

```
Mma
Plot3D[
  {Sqrt[3+4*Cos[y/2]*Cos[x*Sqrt[3]/2] + 2*Cos[y]],
  -Sqrt[3+4*Cos[y/2]*Cos[x*Sqrt[3]/2] + 2*Cos[y]],
  {x,-2Pi/Sqrt[3],2Pi/Sqrt[3]},
  {y,-2Pi,2Pi},
  Axes->True,ViewPoint->{Pi,Pi/4,Pi/10}]
```

⇓

