restart: with(plots):
Warning, the name changecoords has been redefined

> g := (x, y) -> 2*x^2+y^2;
g := (x, y) \rightarrow 2 \cdot x^2 + y^2

plot3d(g(x,y), x = -10..10, y = -10..10, color=red, axes=boxed);

> g := (x, y) -> exp(x) -y^3 + sin(x*y) + x^3*tan(y^2);
g := (x, y) \rightarrow e^x - y^3 + \sin(x \cdot y) + x^3 \cdot \tan(y^2)

plot3d(g(x,y), x = 0..10, y = 0 .. 10, axes=boxed);
\[ g := (x, y) \rightarrow (\text{abs}(\text{abs}(x) - \text{abs}(y)) - \text{abs}(x) - \text{abs}(y))/2; \]

\[ g := (x, y) \rightarrow \frac{1}{2}||x|| - ||y|| - \frac{1}{2}||x|| - \frac{1}{2}||y|| \]

\[ \text{plot3d}(g(x, y), x = -10..10, y = -10..10, \text{color} = \text{red}, \text{axes} = \text{boxed}); \]
\[ g := (x, y) \rightarrow x y (x^2 - y^2) / (x^2 + y^2); \]

\[ \text{plot3d}(g(x,y), x = -10..10, y = -10..10, \text{color=red, axes=boxed}); \]
\[ g := (x, y) \rightarrow y^2 - y^4 - x^2; \]

\[ \text{plot3d}(g(x,y), x = -1..1, y = -1..1, \text{color=red,axes=boxed}); \]
\[ g := (x, y) \rightarrow y^2 - x^2; \]

\[ \text{plot3d}(g(x,y), x = -1..1, y = -1..1, \text{color=red, axes=boxed}); \]

\[ g := (x, y) \rightarrow y^2 - x^2 \]