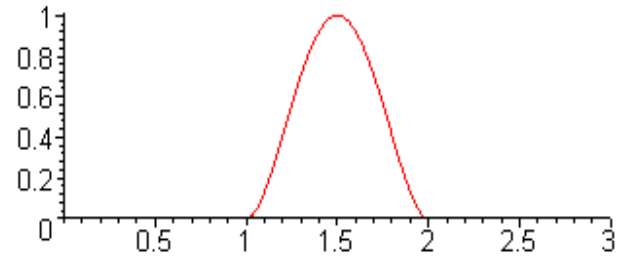


```
> p := t -> `if` ( 1<t and t<2, 16*(t-1)^2*(t-2)^2, 0 );
p := t -> `if` ( 1<t and t<2, 16(t-1)^2(t-2)^2, 0 )
```

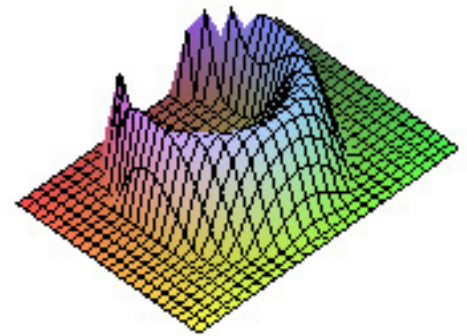
```
> p:=convert(p(t),piecewise);
      0          t < 1
      16(t-1)^2(t-2)^2  t ≤ 2
      0          2 < t
```



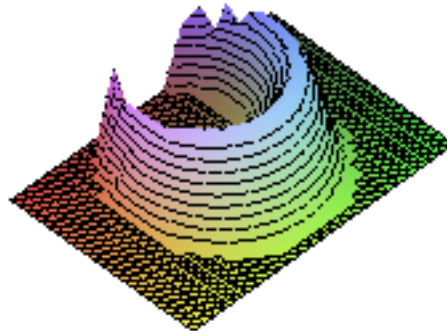
```
> plot(p(t), t=0..3);
```

```
> f := (x,y) -> p( (x^2+y^2)/y );
f := (x, y) -> p( (x^2+y^2)/y )
```

```
> plot3d( f(x,y), x=-1.5..1.5, y=0..2.1);
```



```
>
> plot3d(f(x,y), x=-1.5..1.5, y=0..2.1);
```



$$\begin{aligned} > \frac{\partial}{\partial x} 16 \left(\frac{x^2+y^2}{y} - 1 \right)^2 \left(\frac{x^2+y^2}{y} - 2 \right)^2 \\ & \quad 64 \frac{\left(\frac{x^2+y^2}{y} - 1 \right) \left(\frac{x^2+y^2}{y} - 2 \right)^2 x}{y} + \frac{64 \left(\frac{x^2+y^2}{y} - 1 \right)^2 \left(\frac{x^2+y^2}{y} - 2 \right) x}{y} \end{aligned}$$

$$\begin{aligned} > \frac{\partial}{\partial y} 16 \left(\frac{x^2+y^2}{y} - 1 \right)^2 \left(\frac{x^2+y^2}{y} - 2 \right)^2 \\ & \quad 32 \left(\frac{x^2+y^2}{y} - 1 \right) \left(\frac{x^2+y^2}{y} - 2 \right)^2 \left(2 - \frac{x^2+y^2}{y^2} \right) \\ & \quad + 32 \left(\frac{x^2+y^2}{y} - 1 \right)^2 \left(\frac{x^2+y^2}{y} - 2 \right) \left(2 - \frac{x^2+y^2}{y^2} \right) \end{aligned}$$