

We repeat the example using Maxima.
The prompt is "(%i1)" (input 1).

```
(%i1) eq:'diff(y,x) = x^2*cos(y)^2;
```

you enter this part.

Press shift enter to get:

$$\frac{d}{dx}y = x^2 \cos(y)^2$$

(Check that this is what you wanted.)

To find the general solution use the ode2 command

```
(%i2) ode2(eq,y,x);
```

Press shift enter to get:

$$\tan(y) = \frac{x^3}{3} + \%c$$

Notice it did not solve for y . The $\%c$ is a computer generated constant.

To use an initial condition, use the command ic1

```
(%i3) sol: ic1(%,x=Pi,y=-1);
```

Press shift enter to get

$$\tan(y) = \frac{x^3 - \Pi^3 - 3 \tan(1)}{3}$$