

Equazione iniziale : $y' = y \cos(t)$

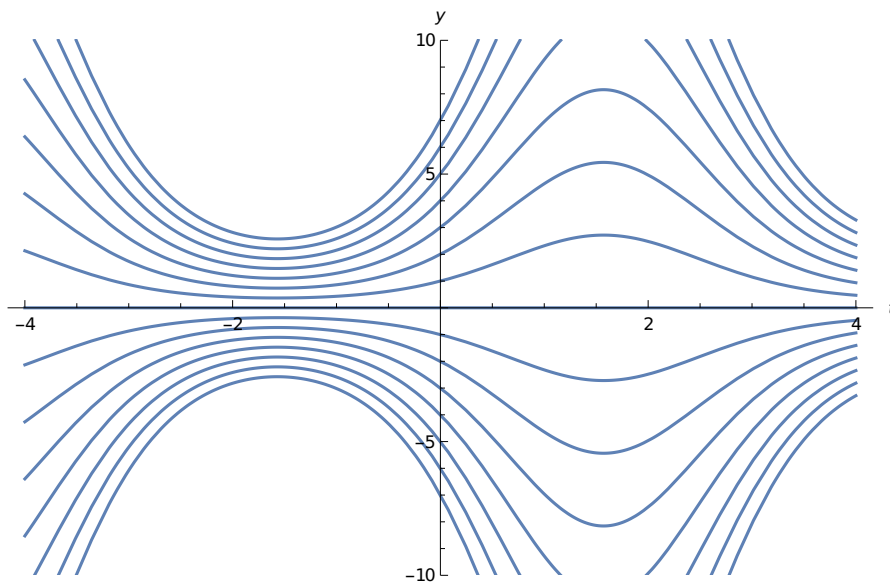
```
solution = DSolve[y'[t] == y[t] * Cos[t], y[t], t]
```

```
{{y[t] -> e^{Sin[t]} c_1}}
```

```
f[t_] = y[t] /. solution[[1]]
```

```
F[t_] = Table[f[t] /. c_1 -> j, {j, -7, 7}]
```

```
Plot[F[t], {t, -4, 4}, AxesLabel -> {t, y}, PlotRange -> {-10, 10}]
```



Condizione data : $y(1) = -1$

```
cauchy = DSolve[{y'[t] == y[t] * Cos[t], y[1] == 1}, y[t], t]
```

```
{{y[t] -> e^{-Sin[1]+Sin[t]}}}
```

```
g[t_] = y[t] /. cauchy[[1]]
```

```
Plot[g[t], {t, -4, 4}, AxesLabel -> {t, y}, PlotRange -> {-10, 10}]
```

