

**Equazione iniziale :  $y' = y^2$**

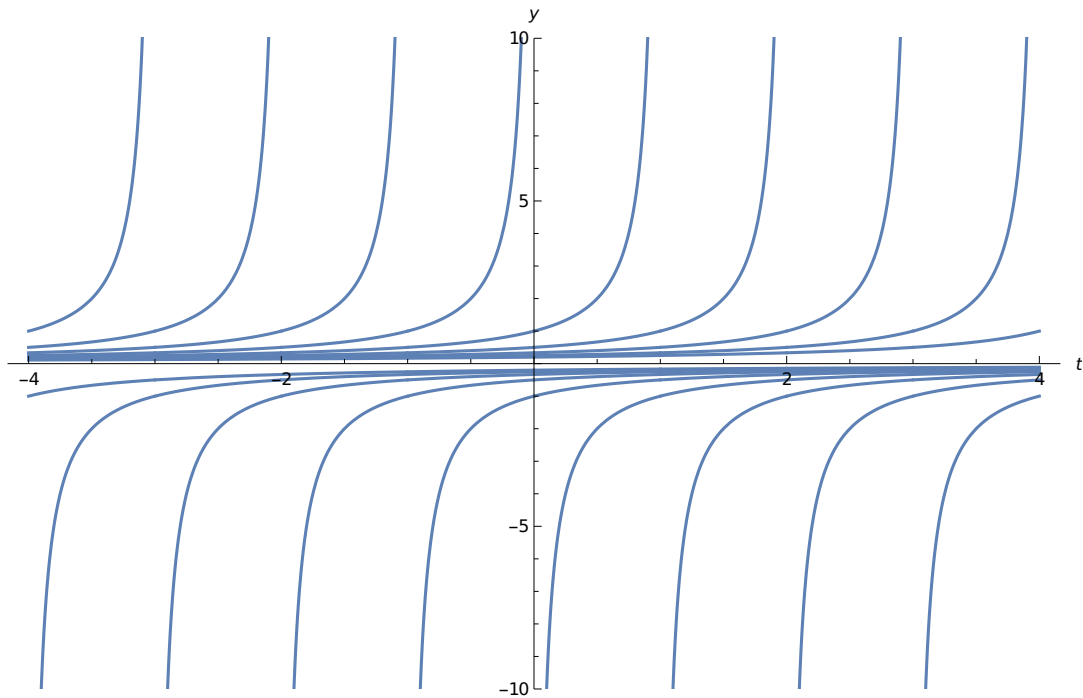
```
solution = DSolve[y'[t] == y[t]^2, y[t], t]
```

```
{{y[t] ->  $\frac{1}{-t - c_1}$ }}
```

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

```
F[t_] = Table[f[t] /. c_1 -> j, {j, -5, 5}]
```

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



**Condizione data :  $y(0) = 1$**

```
cauchy = DSolve[{y'[t] == y[t]^2, y[0] == -1}, y[t], t]
```

```
{{y[t] ->  $\frac{1}{-1 - t}$ }}
```

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

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

