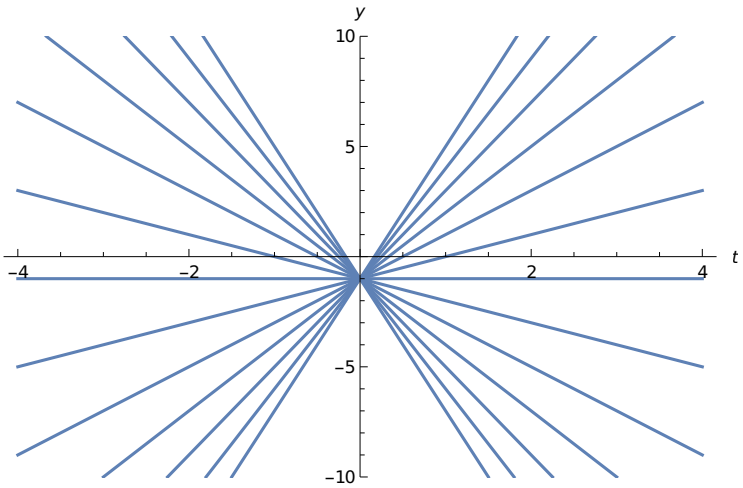
Equazione iniziale : $y' = \frac{y+1}{t}$

```
solution = DSolve[y'[t] == (y[t] + 1)/t, y[t], t]
```

$$\{\{y[t] \to -1 + t\, c_1\}\}$$

```
f[t_] = y[t] /. solution[[1]]
F[t_] = Table[f[t] /. c1 → j, {j, -6, 6}]
Plot[F[t], {t, -4, 4}, AxesLabel → {t, y}, PlotRange → {-10, 10}]
```

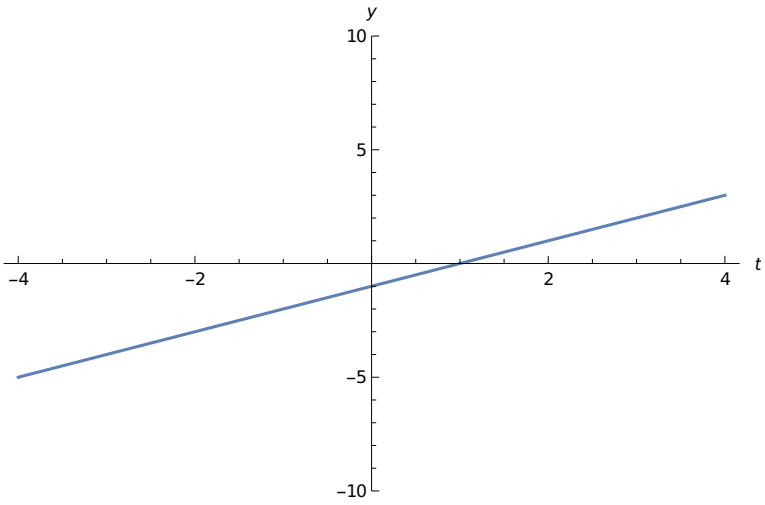


Condizione data : y (1) = 0

```
cauchy = DSolve[{y'[t] == (y[t] + 1)/t, y[1] == 0}, y[t], t]
```

{{y[t] → -1 + t}}

```
g[t_] = y[t] /. cauchy[[1]]
Plot[g[t], {t, -4, 4}, AxesLabel → {t, y}, PlotRange → {-10, 10}]
```


y
10
5
−5
−10
−4
−2
2
4
t