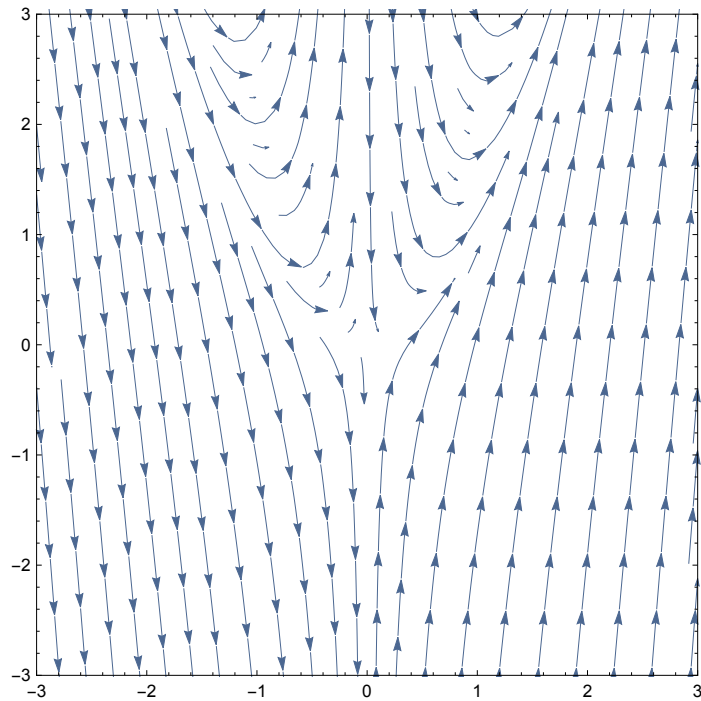


## EXEMPLO I

```
 $\phi[x0_, y0_] = y[x] /. DSolve[{y'[x] == -2 y[x] / x + 4 x, y[x0] == y0}, y[x], x][[1]]$ 
```

$$\frac{x^4 - x0^4 + x0^2 y0}{x^2}$$

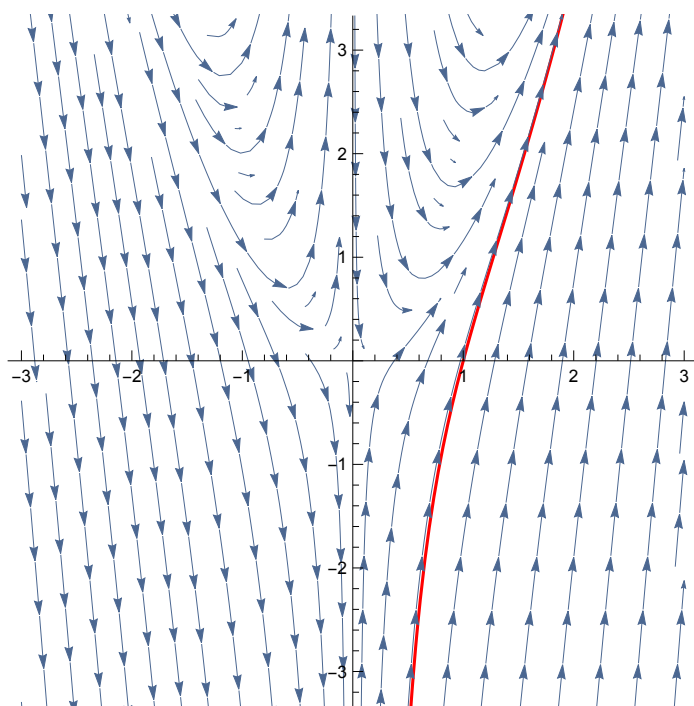
```
V = StreamPlot[{1, -2 y / x + 4 x}, {x, -3, 3}, {y, -5, 5},  
StreamPoints -> Fine, PlotRange -> {{-3, 3}, {-3, 3}}, AspectRatio -> 1]
```



```

x0 = 1;
y0 = 0;
Show[Plot[φ[x0, y0], {x, 0, 2}, PlotStyle → Red, AxesOrigin → {0, 0}],
  V, PlotRange → {{-3, 3}, {-3, 3}}, AspectRatio → 1]

```



## EXEMPLO 2

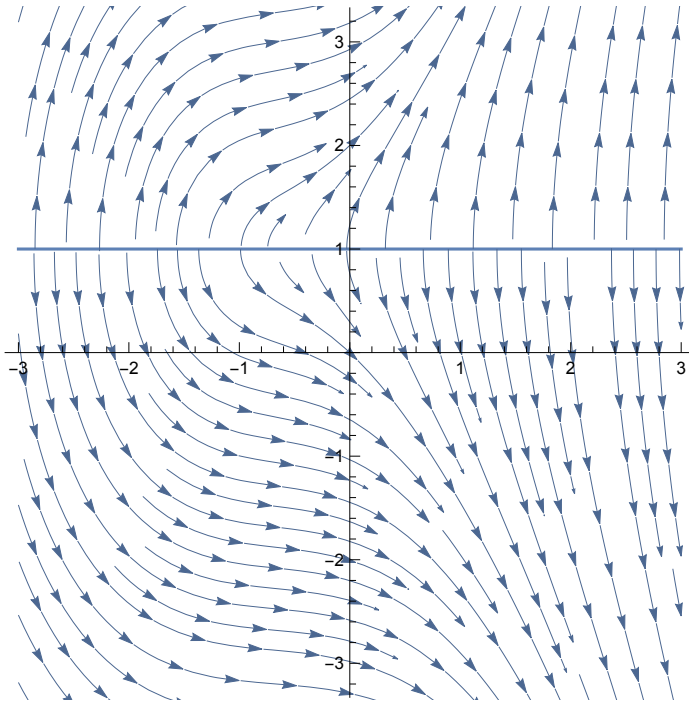
Quit

```

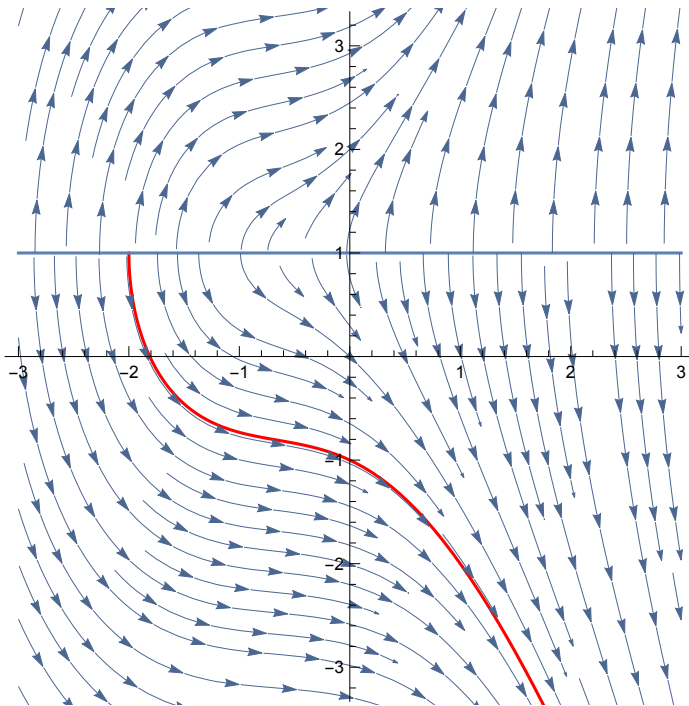
φ[x0_, y0_] = y[x] /. Assuming[y ≠ 0,
  DSolve[{y'[x] == (3 x^2 + 4 x + 2) / (2 (y[x] - 1)), y[x0] == y0}, y[x], x]][[1]]
1 - √(1 + 2 x + 2 x^2 + x^3 - 2 x0 - 2 x0^2 - x0^3 - 2 y0 + y0^2)

```

```
V = Show[Plot[1, {x, -3, 3}],
  StreamPlot[{1, (3 x^2 + 4 x + 2) / (2 (y - 1))}, {x, -3, 3}, {y, -5, 5},
  StreamPoints → Fine], PlotRange → {{-3, 3}, {-3, 3}}, AspectRatio → 1]
```



```
x0 = 0;
y0 = -1;
Show[Plot[φ[x0, y0], {x, -2, 2}, PlotStyle → Red, AxesOrigin → {0, 0}],
  V, PlotRange → {{-3, 3}, {-3, 3}}, AspectRatio → 1]
Clear[x0, y0]
```



```
⋮
```