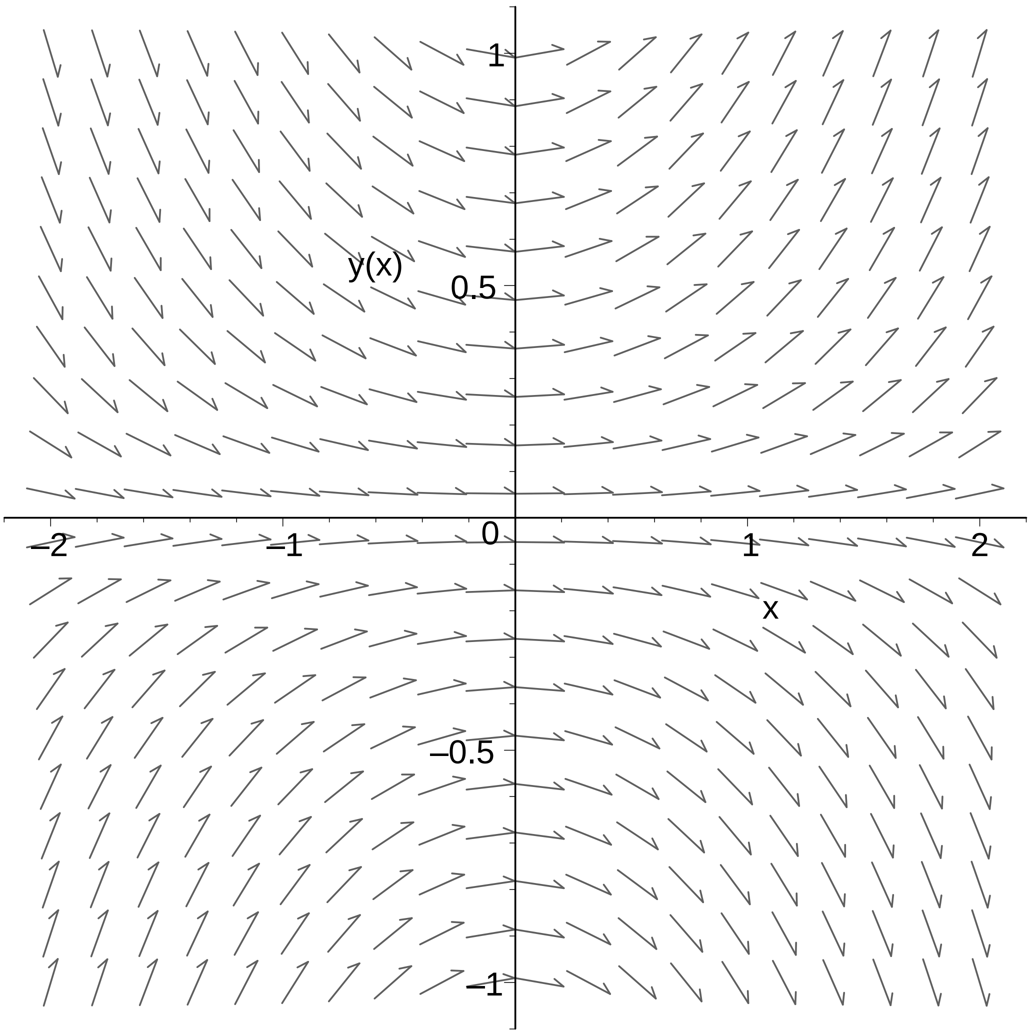
```
>
> # How to plot direction fields
>
> with(DEtools):
> # Define the differential equation.  TRY YOUR OWN EQUATION HERE!
> deq := diff(y(x),x)=x*sin(y(x));
```

$$deq := \frac{d}{dx}\,\mathrm{y}(x) = x\,\sin(\mathrm{y}(x))$$

```
> DEplot(deq, y(x), x=-2..2, y=-1..1);
```

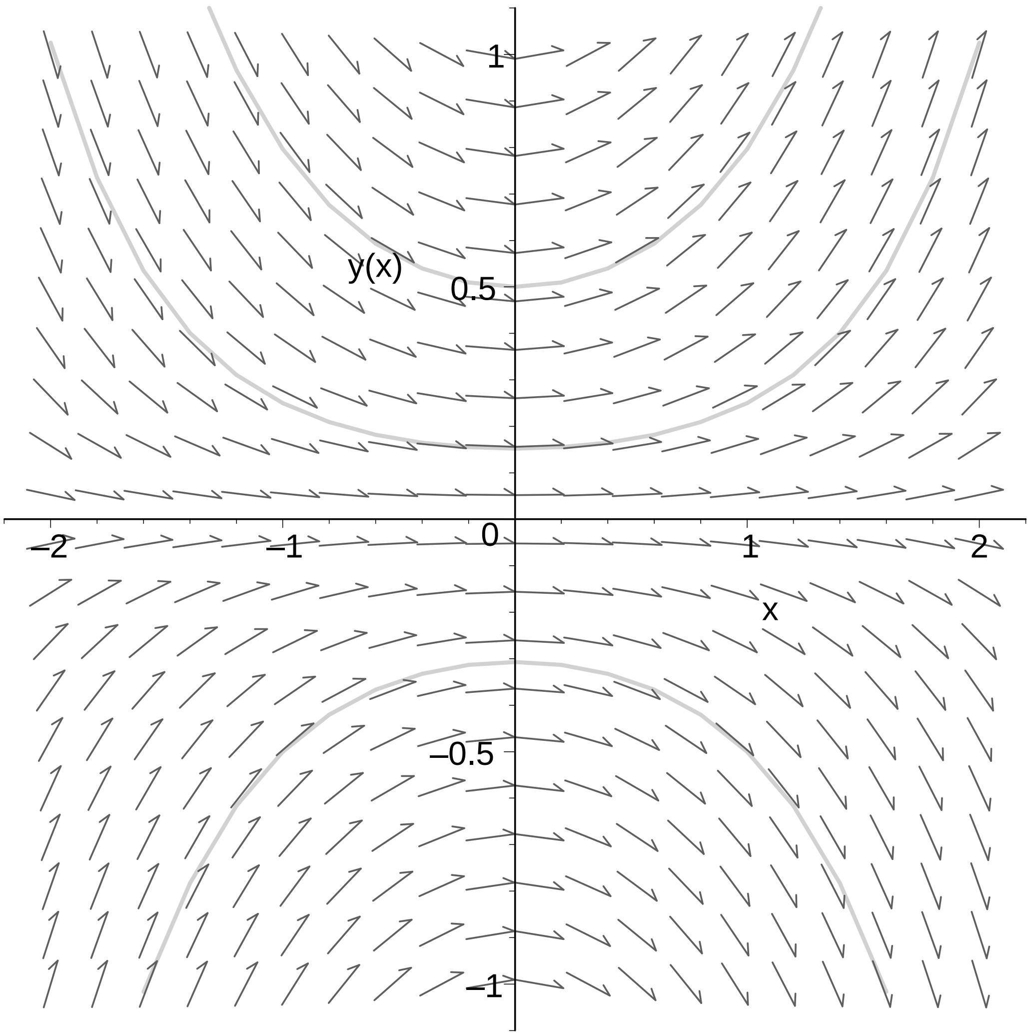



```
>
> # To plot solution curves, we must give initial data as a list of
  points.
```

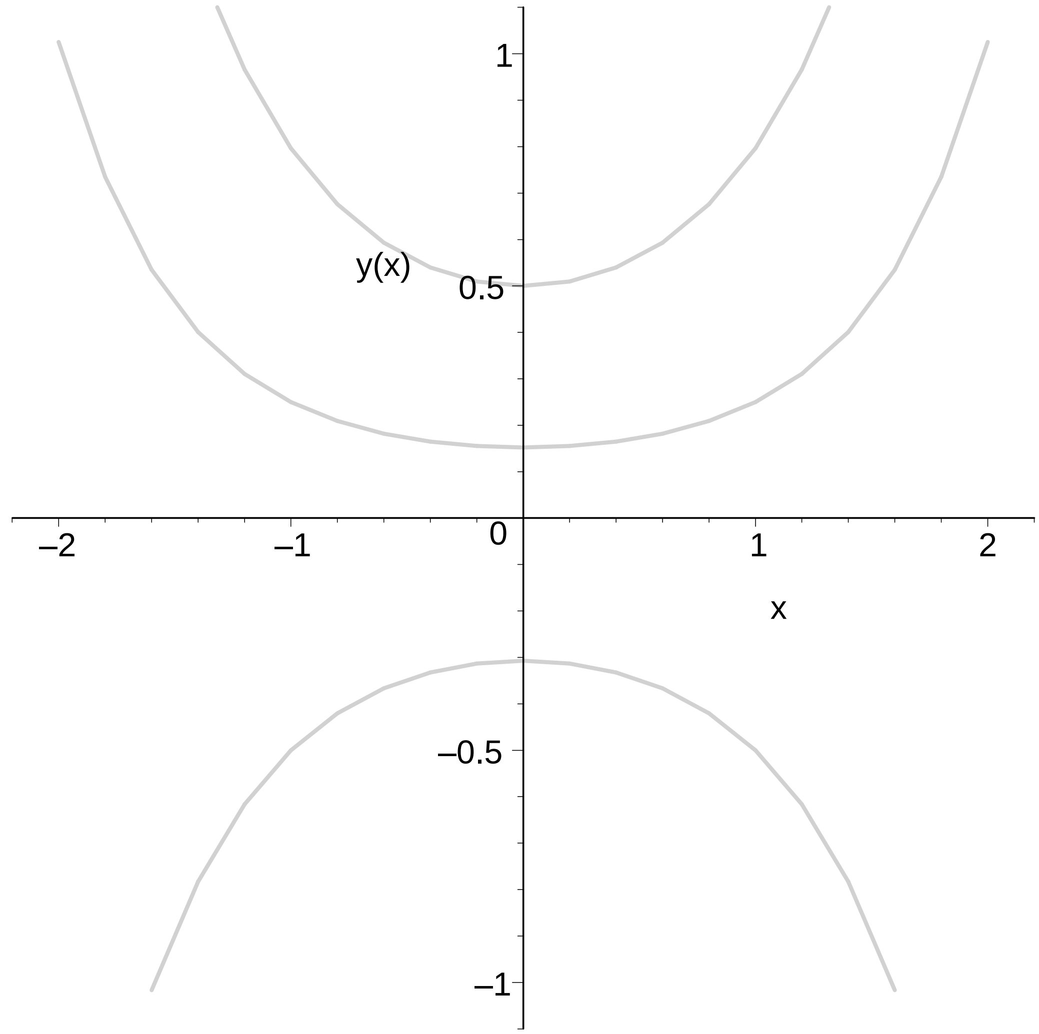
```
> inits := [[0,.5], [1,-.5], [-1,.25]];
```

$$inits := [[0, 0.5], [1, -0.5], [-1, 0.25]]$$

```
> DEplot(deq, y(x), x=-2..2, y=-1..1, inits);
```




```
>
> # If you want just the curves and not the direction field, ...
> DEplot(deq, y(x), x=-2..2, y=-1..1, inits, arrows=none);
```



1
0.5
y(x)
0
–0.5
–1
–2
–1
1
2
x


>