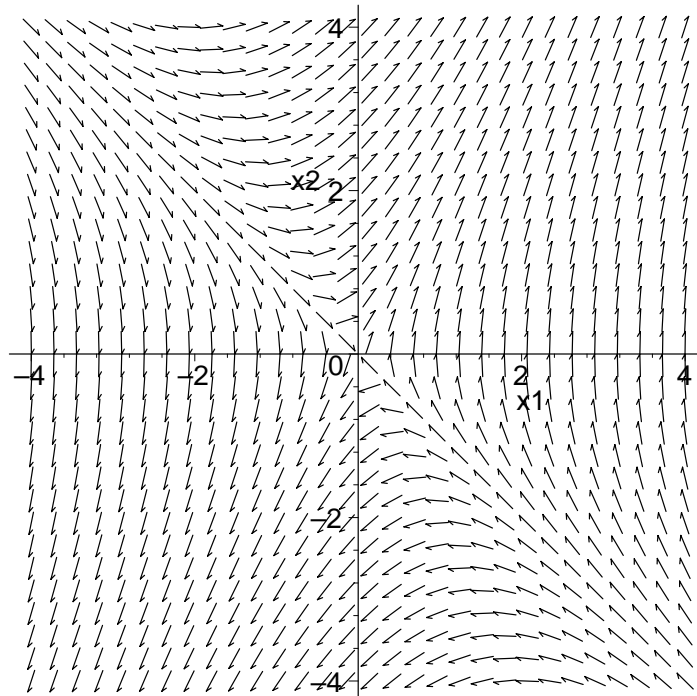


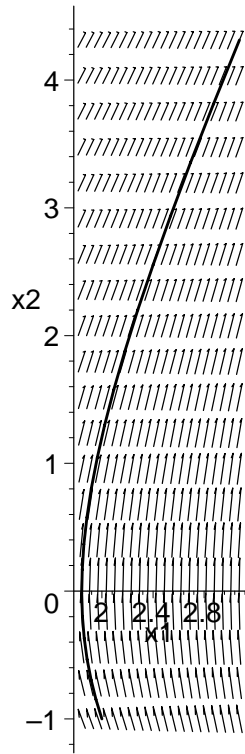
Math 2280-2
Monday February 26, 2001

Geometric meaning of systems of first order differential equations

```
> restart:  
with(DEtools):  
dfieldplot([diff(x1(t),t)=x2(t),diff(x2(t),t)=2*x1(t)+x2(t)],  
[x1(t),x2(t)], t=0..1,  
x1=-4..4,x2=-4..4,dirgrid=[30,30],color=black);
```



```
> phaseportrait([diff(x1(t),t)=x2(t),diff(x2(t),t)=2*x1(t)+x2(t)],  
[x1(t),x2(t)],t=0..1,  
{[x1(0)=2,x2(0)=-1]},color=black,linecolor=black);
```



[>