In[135]:=

```
Clear[minx, miny, maxx, maxy]
minx = -2;
miny = -2;
maxx = 2;
maxy = 2;
```

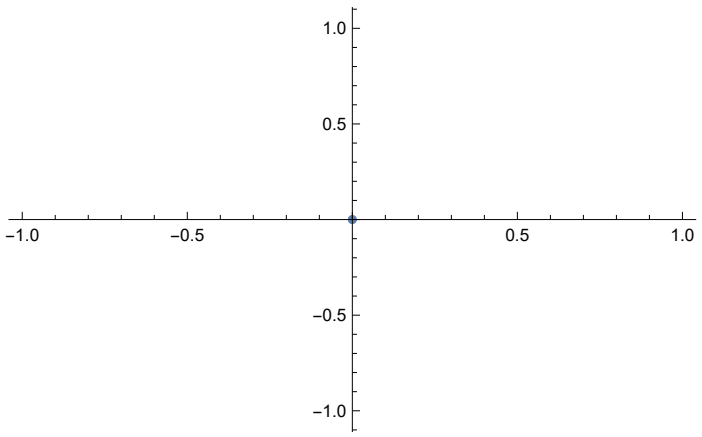
In[39]:=

```
Clear[sol, x, y, t]
sol[x0_, y0_] := NDSolve[
  {x'[t] == 3 * x[t] + 4 * y[t],
   y'[t] == -9/4 * x[t] - 3 * y[t],
   x[0] == x0, y[0] == y0},
  {x, y}, {t, -10, 10}]
```

In[130]:=

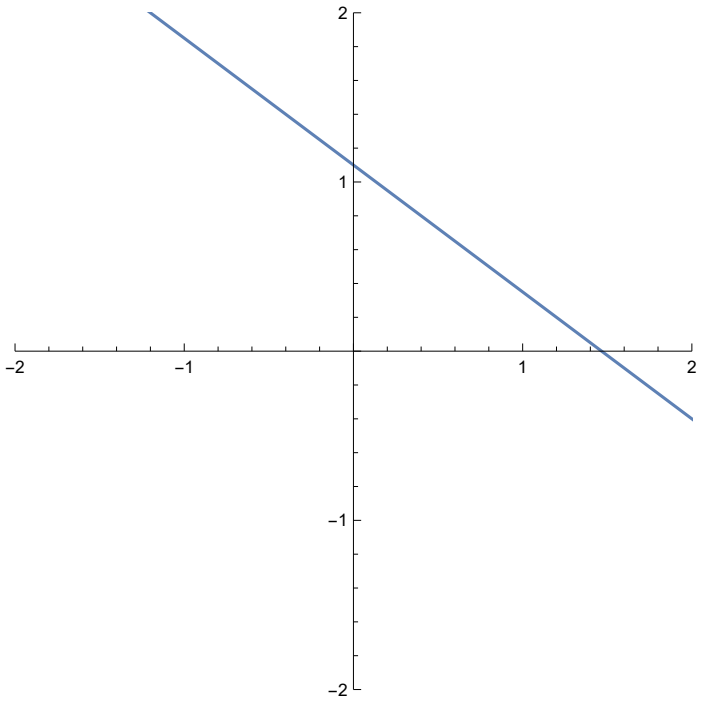
```
initialCond = Join[
   (*Table[{minx , y } , {y,miny , maxy,0.1}],
   Table[{maxx, y} , {y, miny , maxy,0.1}],
   Table[{x , miny},{x , minx , maxx,0.1}],
   Table[{x,maxy},{x,minx , maxx,0.1}]*)

   Table[{x , miny}, {x , minx , maxx, 0.1}],
   Table[{x, maxy}, {x, minx , maxx, 0.1}],
   Table[{minx , y } , {y, miny , maxy, 0.1}],
   Table[{maxx, y} , {y, miny , maxy, 0.1}]
  ];
```

Out[ ]=



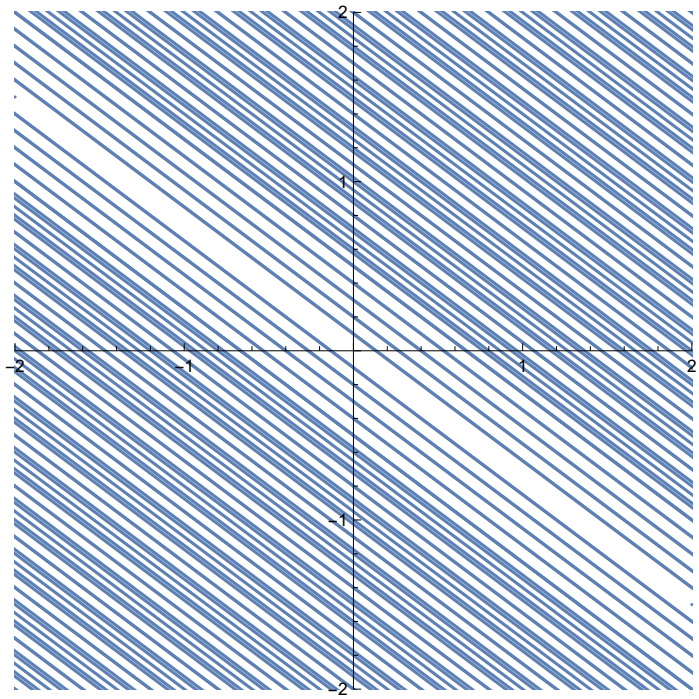
In[41]:=
```
ParametricPlot[
 Evaluate[{x[t], y[t]} /. sol[initialCond[[50, 1]], initialCond[[50, 2]]]],
 {t, -10, 10}, PlotRange → {{minx, maxx}, {miny, maxy}}]
```

Out[41]=



In[42]:=
```
p2 = Show[

  Table[
   ParametricPlot[
    Evaluate[{x[t], y[t]} /. sol[initialCond[[i, 1]], initialCond[[i, 2
        ]]]], {t, -10, 10}, PlotRange → {{minx, maxx}, {miny, maxy}}],
   {i, 1, Length[initialCond]}],
  ListPlot[{{0, 0}}, PlotStyle → {PointSize[0.03], Red},
   PlotMarkers → {"", Large}, PlotLegends → {"Line of fixed fixed point, sigma = 0"}]
 ]
```

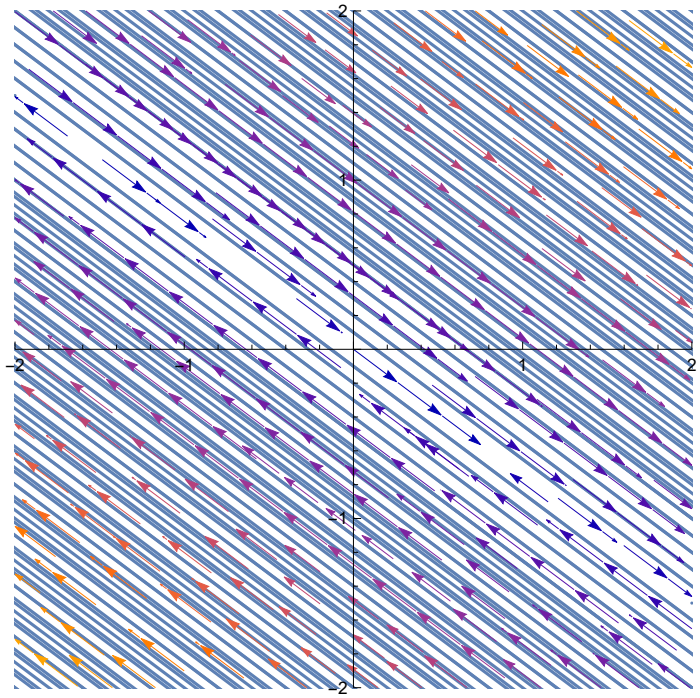
Out[42]=



Line of fixed fixed point, sigma = 0

In[43]:=
```
Show[p2, StreamPlot[{3 * x + 4 * y, -9/4 * x - 3 * y}, {x, -2, 2}, {y, -2, 2}],
 PlotRange → {{minx, maxx}, {miny, maxy}}]
```

Out[43]=



Line of fixed fixed point, sigma = 0