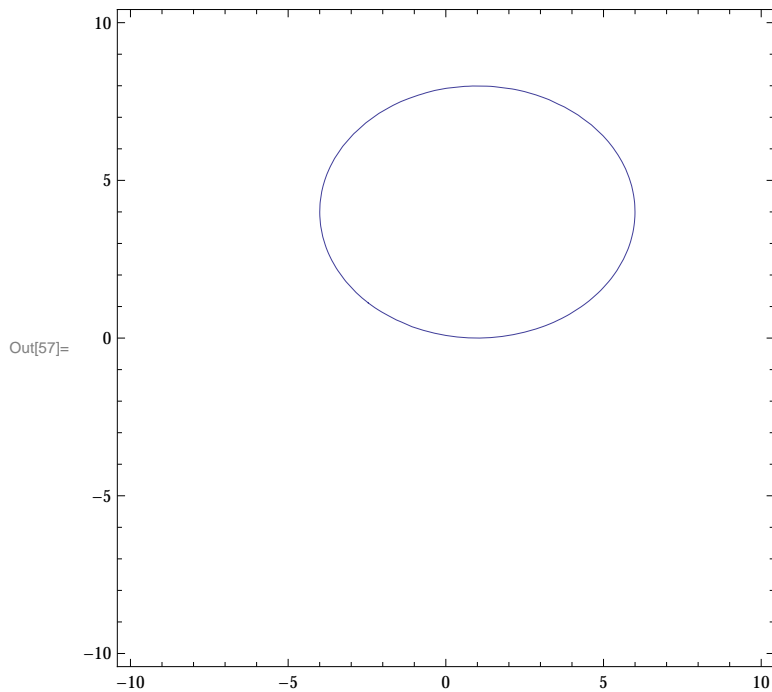


In[78]:= (* quadratic curves *)

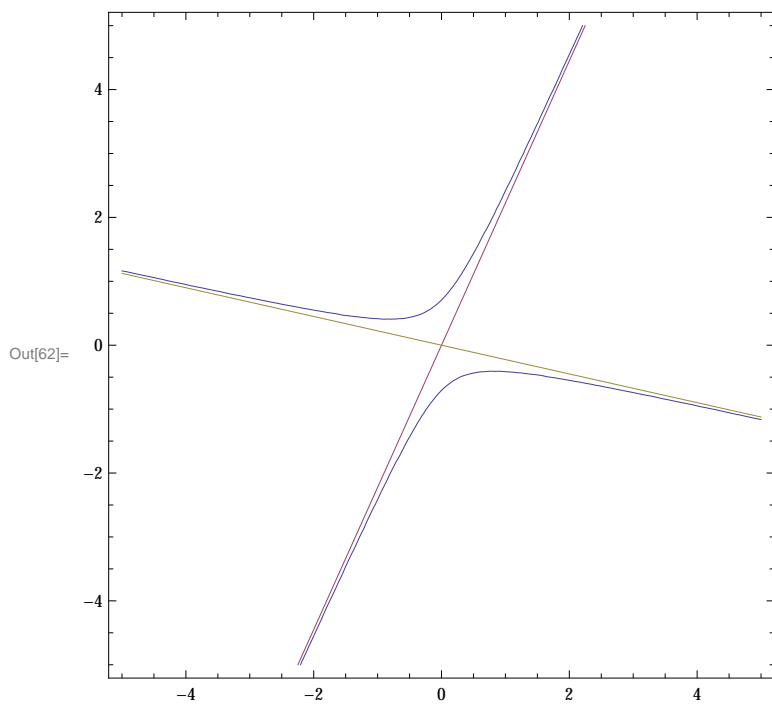
(* ellipse *)

In[57]:= ContourPlot[$16x^2 - 32x + 25y^2 - 200y + 16 == 0$,
{x, -10, 10}, {y, -10, 10}]



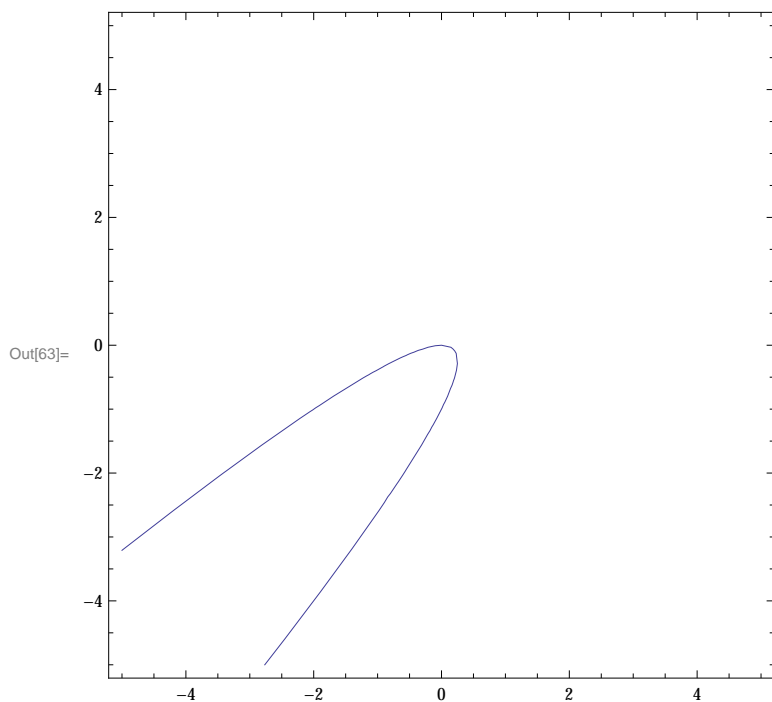
(* hyperbola *)

In[62]:= ContourPlot[$\{x^2 + 4xy - 2y^2 + 1 == 0,$
 $y == \left(1 + 2 \frac{\sqrt{6}}{4}\right)x, y == \left(1 - 2 \frac{\sqrt{6}}{4}\right)x\}, \{x, -5, 5\}, \{y, -5, 5\}]$



(* parabola *)

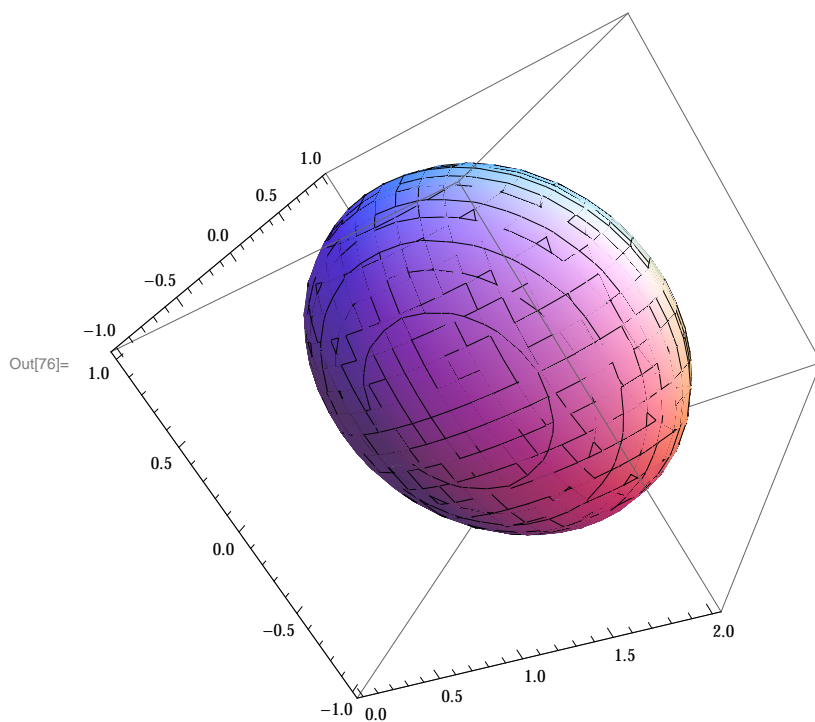
```
In[63]:= ContourPlot[x^2 - 2 x y + y^2 + y == 0, {x, -5, 5}, {y, -5, 5}]
```



```
In[79]:= (* quadratic surfaces *)
```

(* ellipsoid *)

```
In[76]:= ContourPlot3D[x^2 + 4 y^2 + z^2 - 2 x == 0, {x, 0, 2}, {y, -1, 1}, {z, -1, 1}]
```



```
In[80]:= (* paraboloid *)
```

```
In[68]:= ContourPlot3D[9 x^2 + 5 y^2 + 5 z^2 + 12 x y + 6 x z + 5 x - 6 y - 3 z == 2,  
  {x, -10, 10}, {y, -10, 10}, {z, -10, 10}]
```

