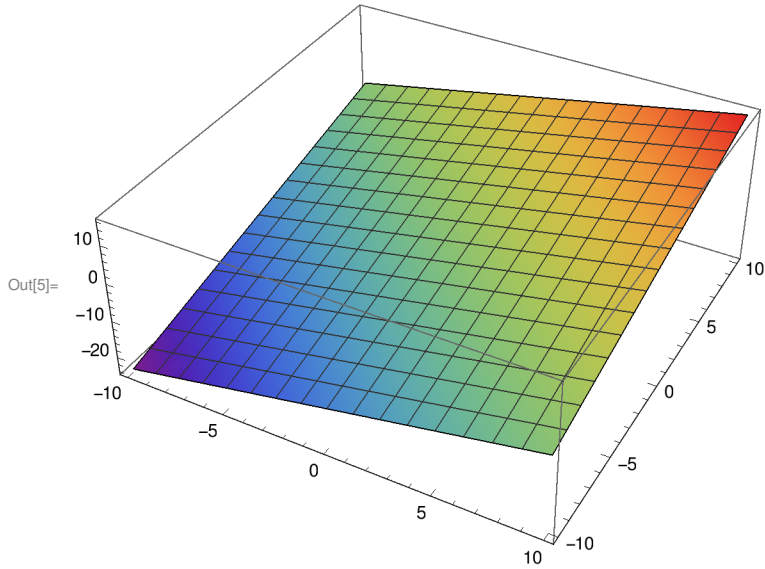
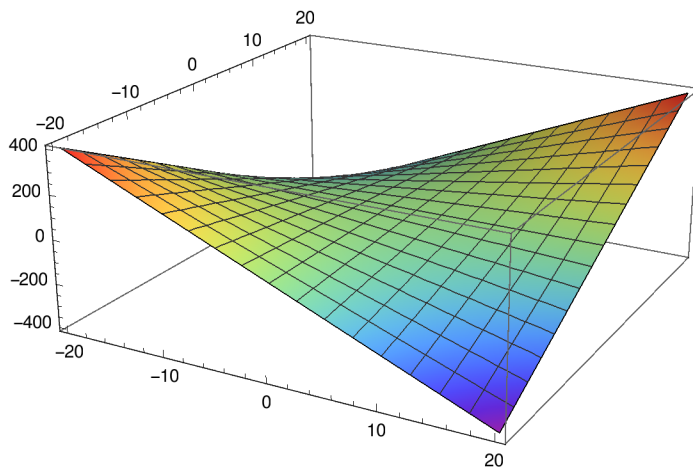


```
SetOptions[Plot3D(*Or whichever plot you desire*),  
  ColorFunction -> "Rainbow"(*One of many options*)];  
(1)
```

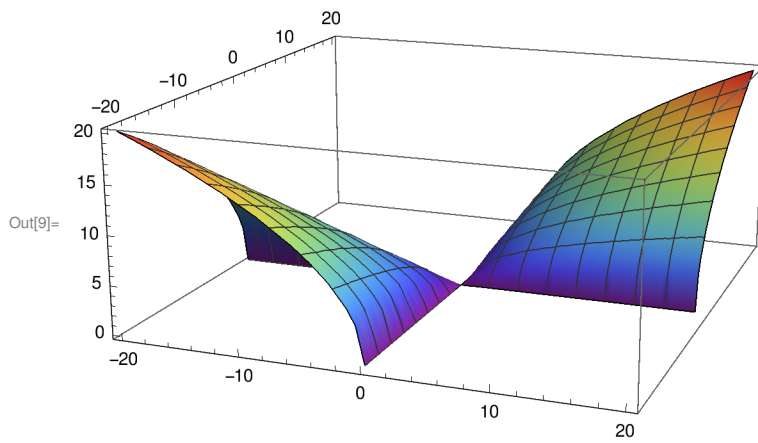
```
In[5]:= Plot3D[x + y - 4, {x, -10, 10}, {y, -10, 10}]
```



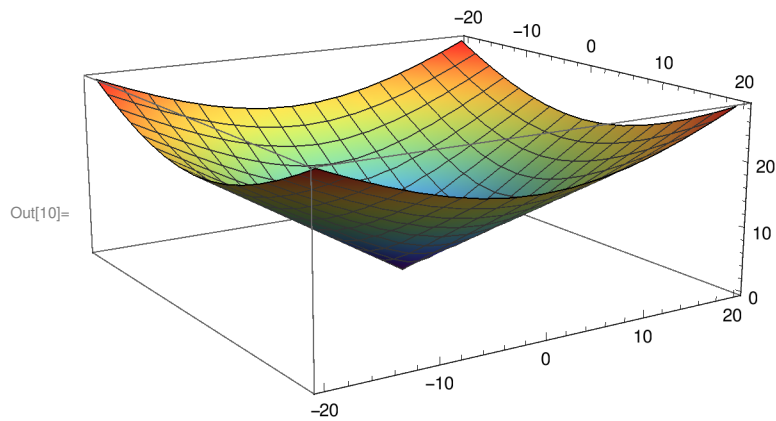
```
Plot3D[x * y, {x, -20, 20}, {y, -20, 20}]
```



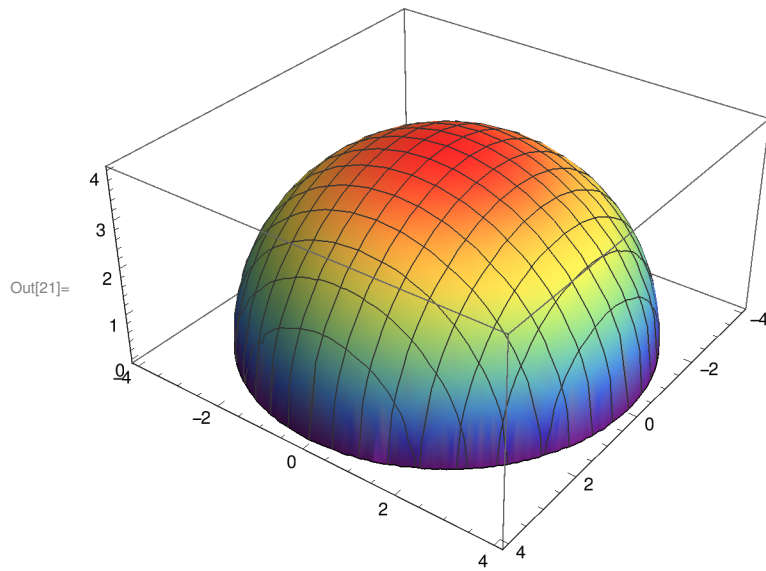
```
In[9]:= Plot3D[Sqrt[x * y], {x, -20, 20}, {y, -20, 20}]
```



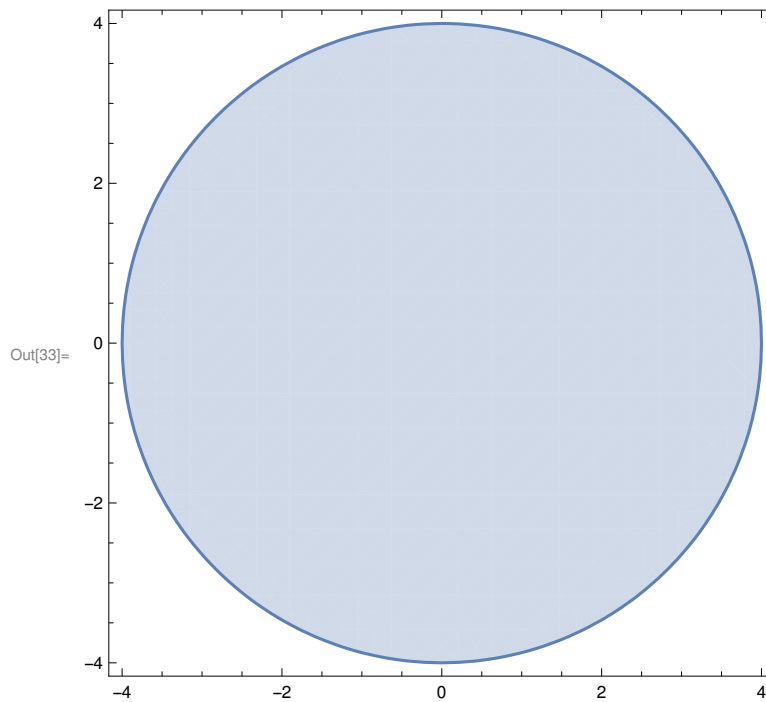
```
In[10]:= Plot3D[Sqrt[x^2 + y^2], {x, -20, 20}, {y, -20, 20}]
```



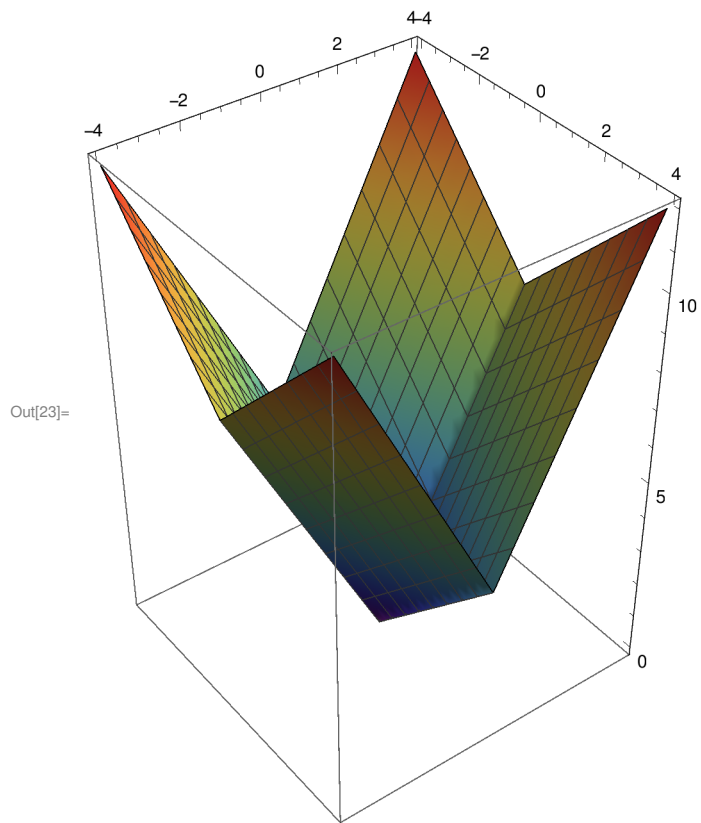
```
In[21]:= Plot3D[Sqrt[16 - (x^2 + y^2)], {x, -4, 4}, {y, -4, 4}, BoxRatios -> Automatic]
```



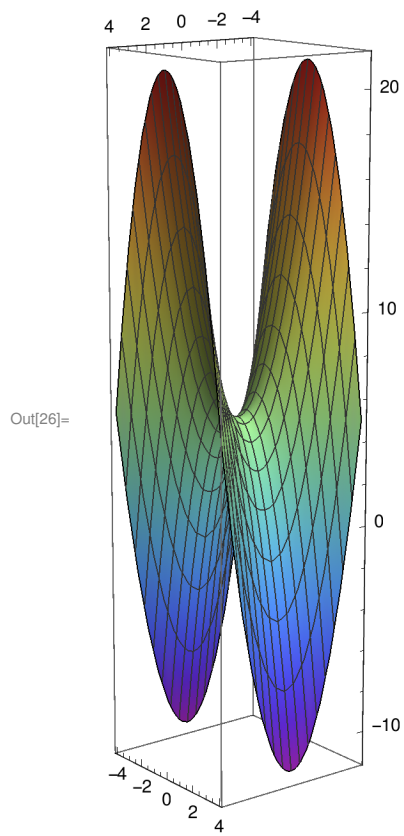
```
In[33]:= RegionPlot[FunctionDomain[Sqrt[16 - (x^2 + y^2)], {x, y}], {x, -4, 4}, {y, -4, 4}]
```



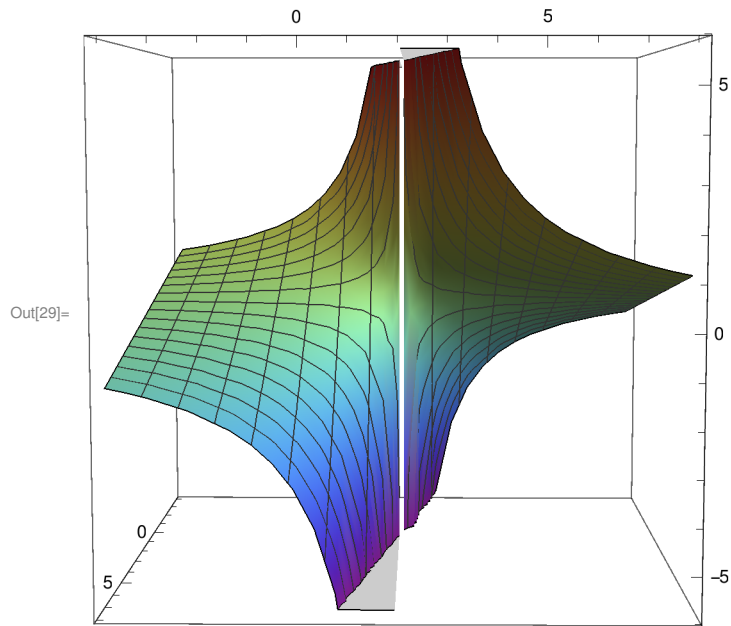
```
In[23]:= Plot3D[Abs[x] + 2 Abs[y], {x, -4, 4}, {y, -4, 4}, BoxRatios -> Automatic]
```



```
In[26]:= Plot3D[(x^2 - y^2 + 5), {x, -4, 4}, {y, -4, 4}, BoxRatios -> Automatic]
```

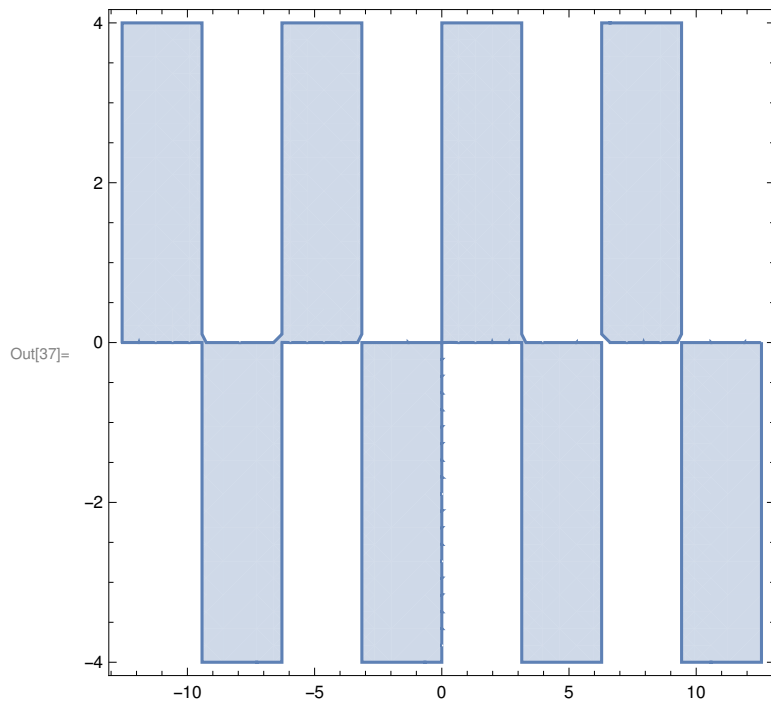


```
In[29]:= Plot3D[(x - 1) / (y - 2), {x, -4, 8}, {y, -4, 8}, BoxRatios -> Automatic]
```

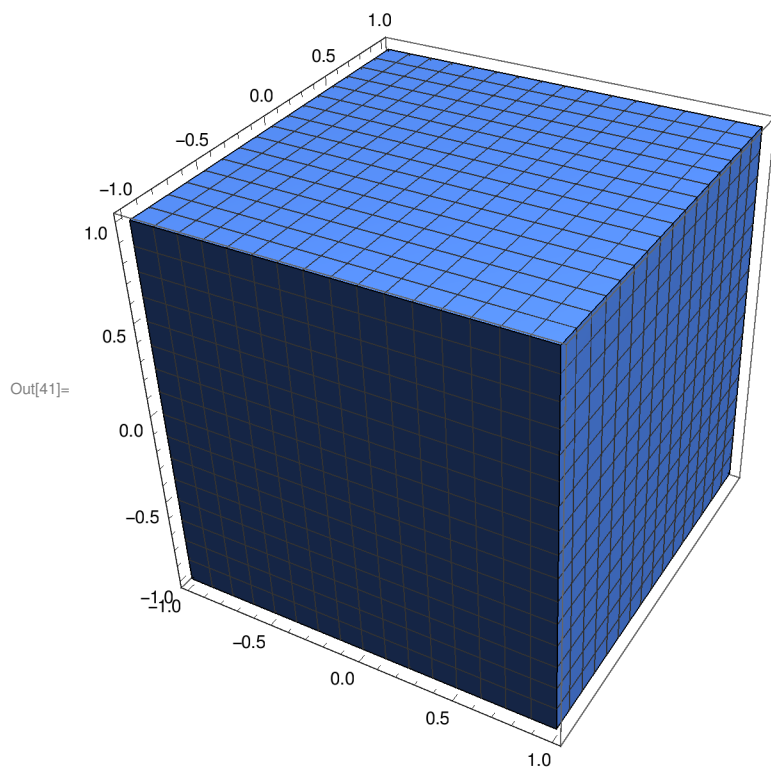


(2)

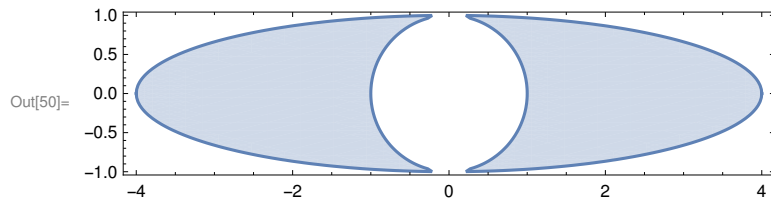
In[37]:= `RegionPlot[FunctionDomain[Sqrt[y * Sin[x]], {x, y}], {x, -4 Pi, 4 Pi}, {y, -4, 4}]`



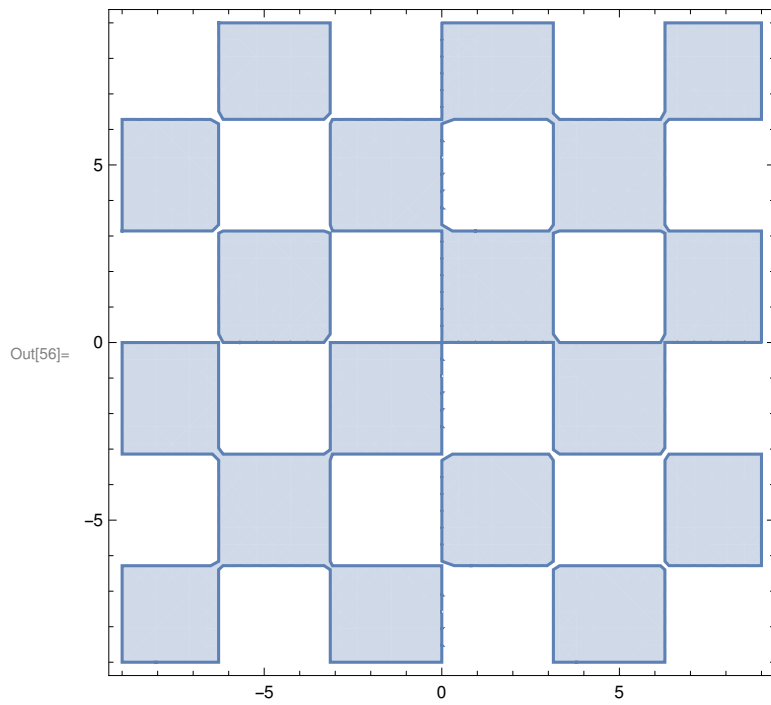
In[41]:= `RegionPlot3D[FunctionDomain[ArcSin[x] + ArcSin[y] + ArcSin[z], {x, y, z}], {x, -1, 1}, {y, -1, 1}, {z, -1, 1}, BoxRatios -> Automatic]`



```
In[50]:= RegionPlot[FunctionDomain[Log[(16 - x^2 - 16 y^2)] + Log[(-1 + x^2 + y^2)], {x, y}],
{x, -4, 4}, {y, -1, 1}, AspectRatio -> Automatic]
```

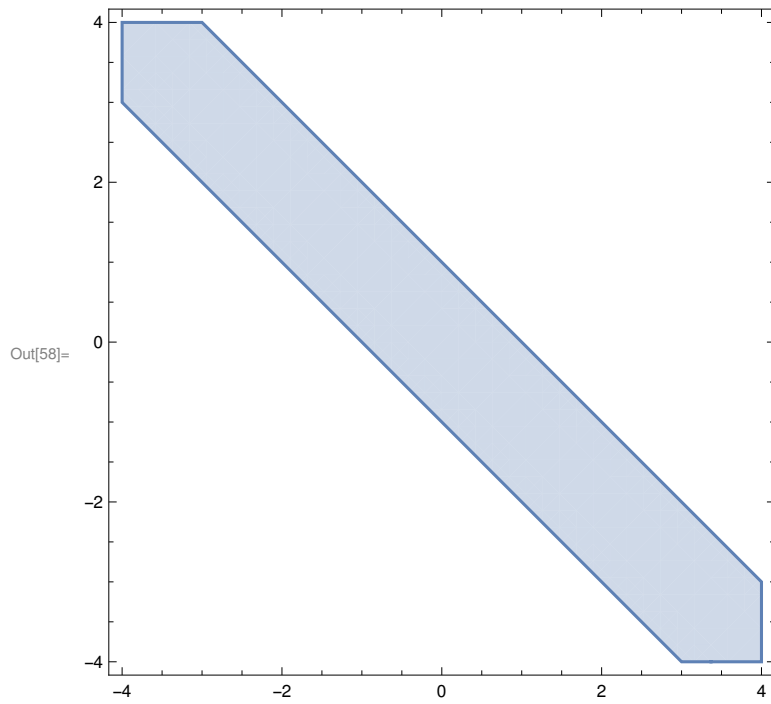


```
In[56]:= RegionPlot[FunctionDomain[Sqrt[Sin[x] * Sin[y]], {x, y}],
{x, -9, 9}, {y, -9, 9}, AspectRatio -> Automatic]
```

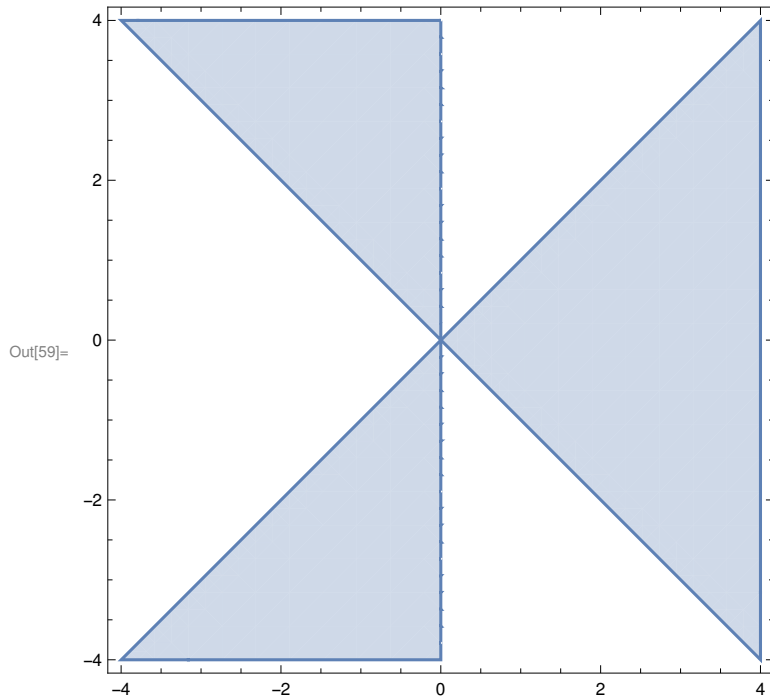


(3)

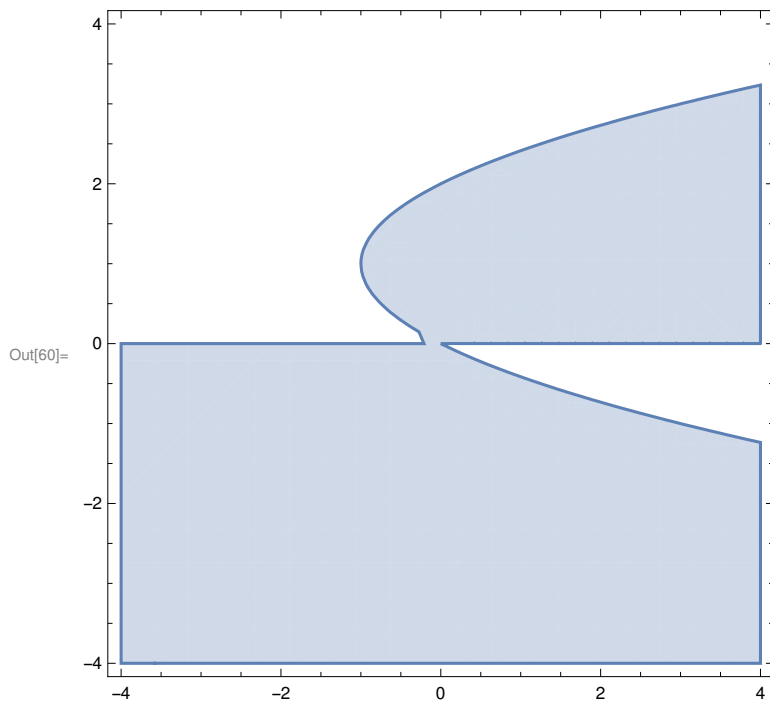

```
In[58]:= RegionPlot[FunctionDomain[ArcSin[x + y] + ArcTan[x + y] + x * y, {x, y}],  
{x, -4, 4}, {y, -4, 4}, AspectRatio -> Automatic]
```



```
In[59]:= RegionPlot[FunctionDomain[Log[x / (Abs[x] - Abs[y])], {x, y}],  
{x, -4, 4}, {y, -4, 4}, AspectRatio -> Automatic]
```



```
In[60]:= RegionPlot[FunctionDomain[Sqrt[x * y - y^3 + 2 y^2], {x, y}],  
{x, -4, 4}, {y, -4, 4}, AspectRatio -> Automatic]
```



```
In[64]:= RegionPlot[FunctionDomain[ArcSin[Sqrt[x * (x + y)]], {x, y}],  
{x, -2, 2}, {y, -2, 2}, AspectRatio -> Automatic]
```

