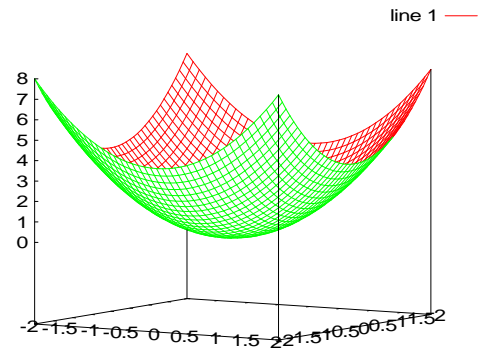


Graf funkcie

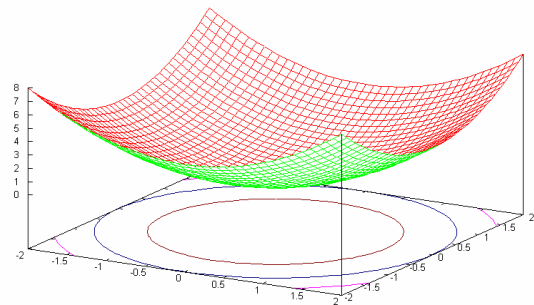
Príklad Zostrojme graf funkcie $z = x^2 + y^2$ a funkcie $z = 2 - x^2 - y^2$, pre $x \in \langle -2, 2 \rangle$, $y \in \langle -2, 2 \rangle$.

Riešenie:

```
octave:1> x=-2:0.1:2;y=-2:0.1:2;[xx,yy]=meshgrid(x,y);  
octave:2> z=xx.^2+yy.^2;  
octave:3> mesh(x,y,z);
```



```
octave:4> x=-2:0.1:2;y=-2:0.1:2;[xx,yy]=meshgrid(x,y);  
octave:5> z=xx.^2+yy.^2;  
octave:6> meshc(x,y,z);
```

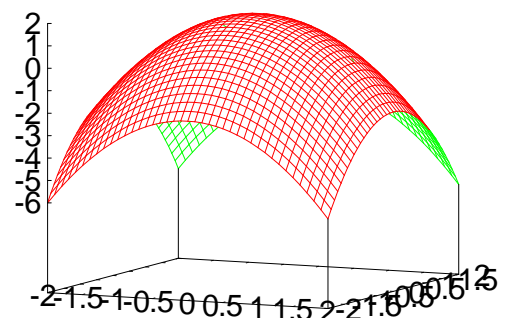


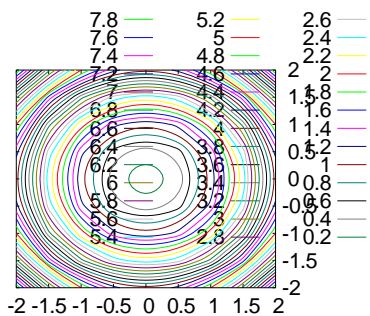
view: 60.0000, 30.0000 scale: 1.00000, 1.00000

```
octave:12> contour(x,y,z,40);
```

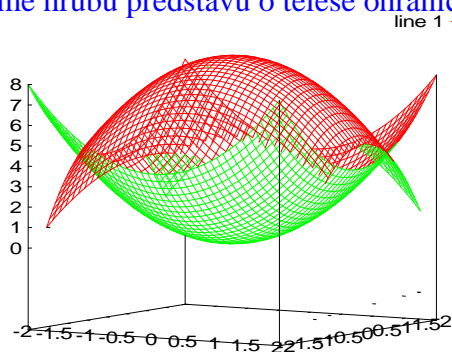
```
octave:4> x=-2:0.1:2;y=-2:0.1:2;[xx,yy]=meshgrid(x,y);  
octave:5> z=2-xx.^2-yy.^2;  
octave:6> mesh(x,y,z);
```

line 1 —





Spojením oboch grafov dostaneme hrubú predstavu o telese ohraničenom uvedenými plochami.

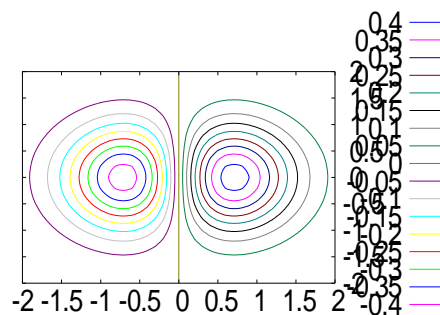
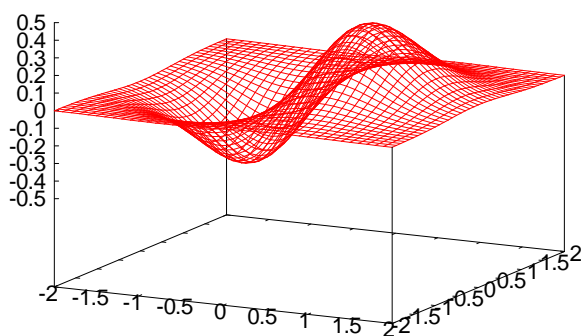


Príklad Zostrojme graf funkcie $z = xe^{-x^2-y^2}$ pre $x \in \langle -2, 2 \rangle$, $y \in \langle -2, 2 \rangle$.

Riešenie:

```
octave:4> x=-2:0.1:2;y=-2:0.1:2;[xx,yy]=meshgrid(x,y);
octave:5> z=xx.*exp(-xx.^2-yy.^2);
octave:6> mesh(x,y,z);
octave:4> contour(x,y,z,40);
```

line 1 —



```
octave:4> x=-2:0.1:2;y=-2:0.1:2;[xx,yy]=meshgrid(x,y);
```

```
octave:7> z=xx.*exp(-xx.^2-yy.^2);  
octave:8> meshc(x,y,z);
```

