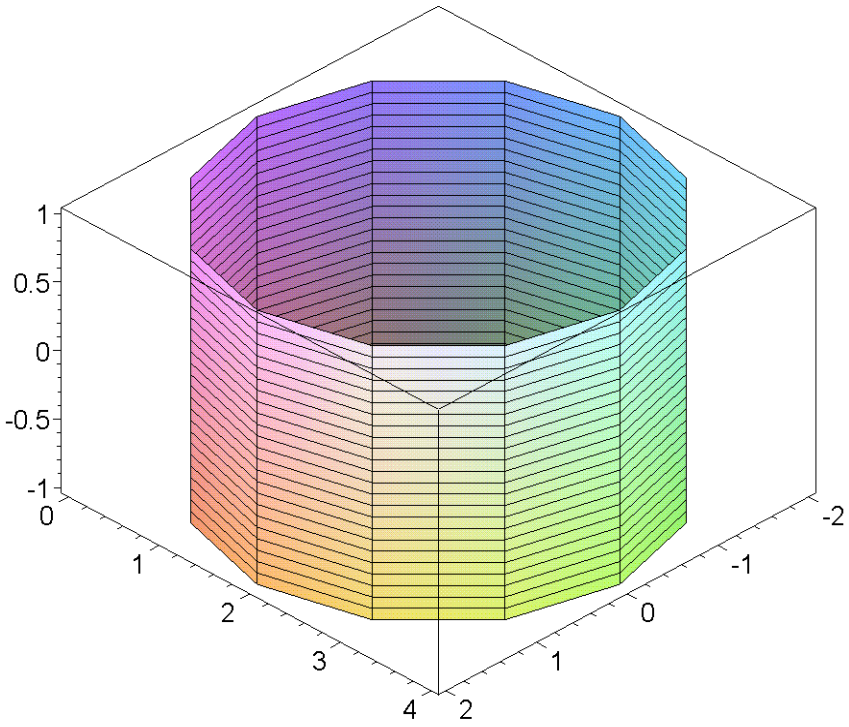
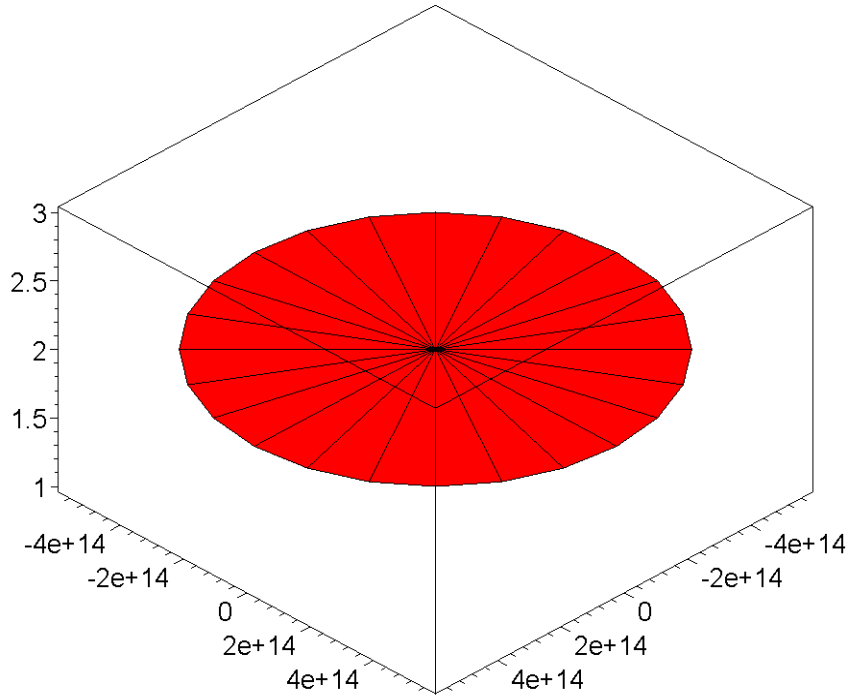
```
> restart:with(plots):with(student):
Warning, the name changecoords has been redefined
```

```
> plot3d(4*sin(theta),theta=0..2*Pi,z=-1..1, coords=cylindrical,
  style=patch,axes = boxed);
```

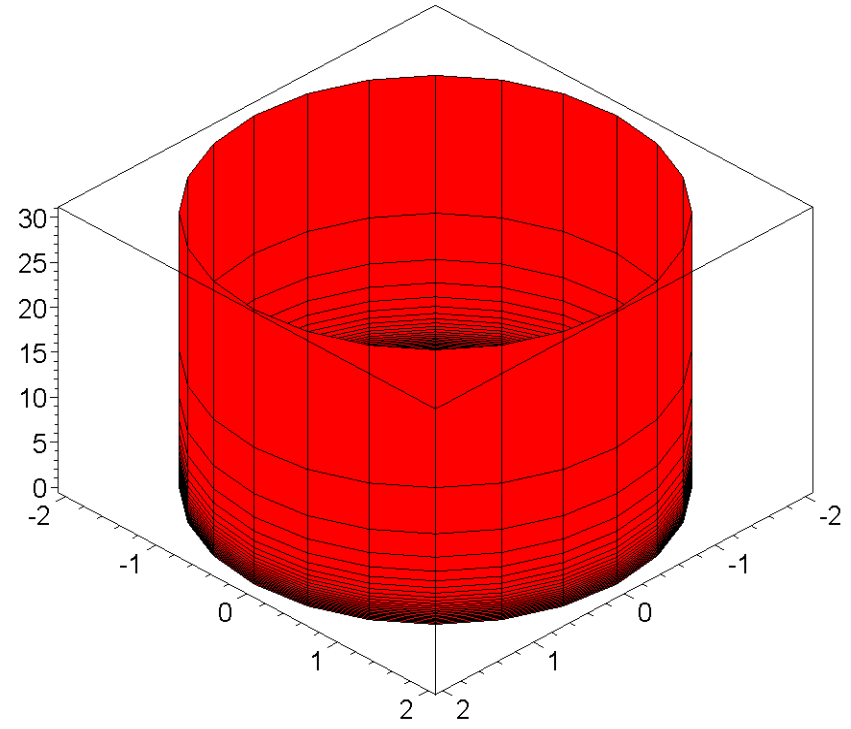



```
>
```

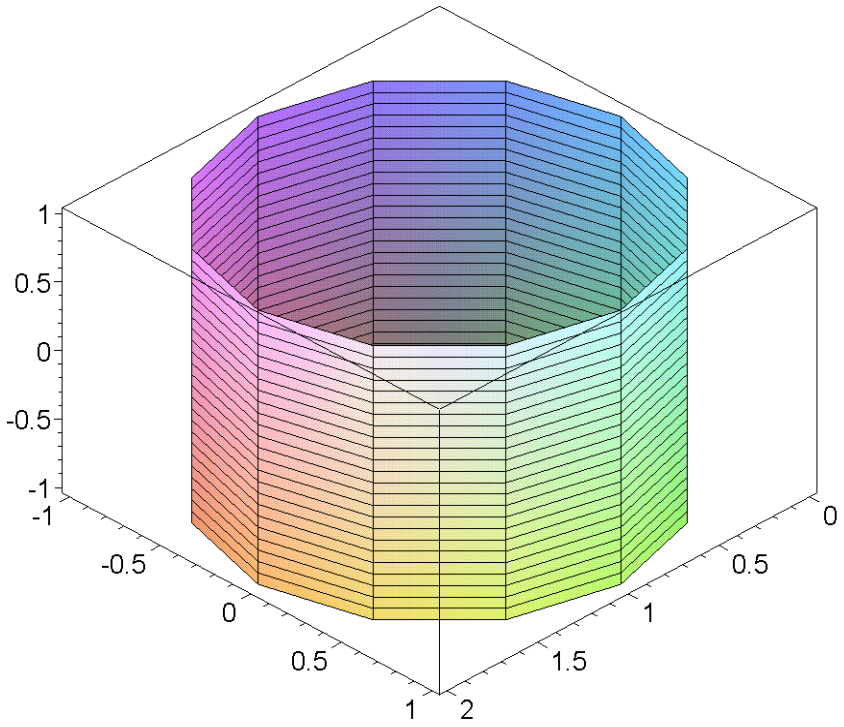
```
> plot3d(2/(cos(phi)), theta=0..2*Pi, phi=0..Pi/2,
  coords=spherical,color = red, axes=boxed);
```



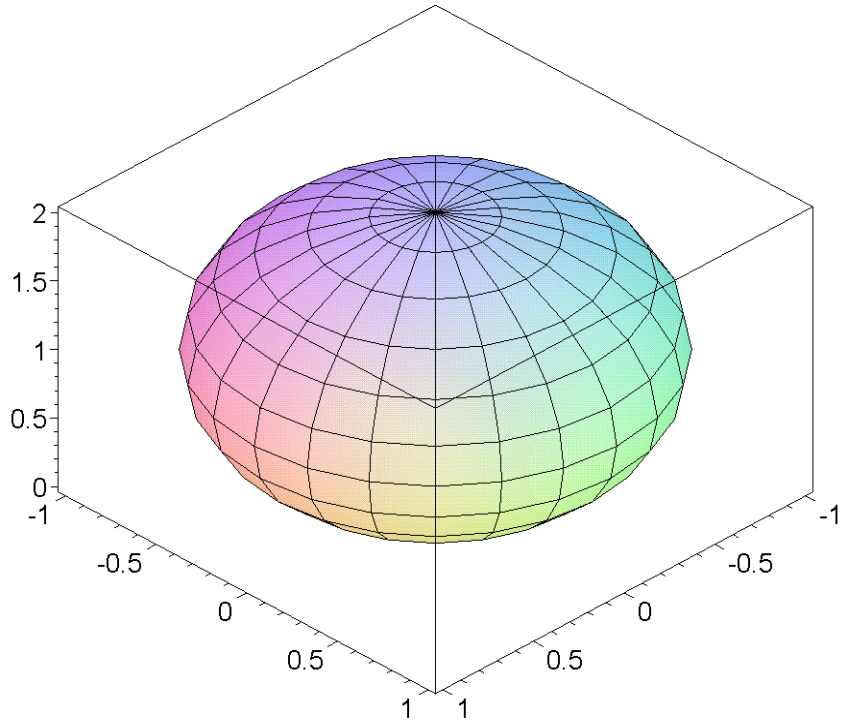

```
> plot3d(2/(sin(phi)), theta=0..2*Pi, phi=0..Pi/2,
  coords=spherical,color = red, axes=boxed);
>
```



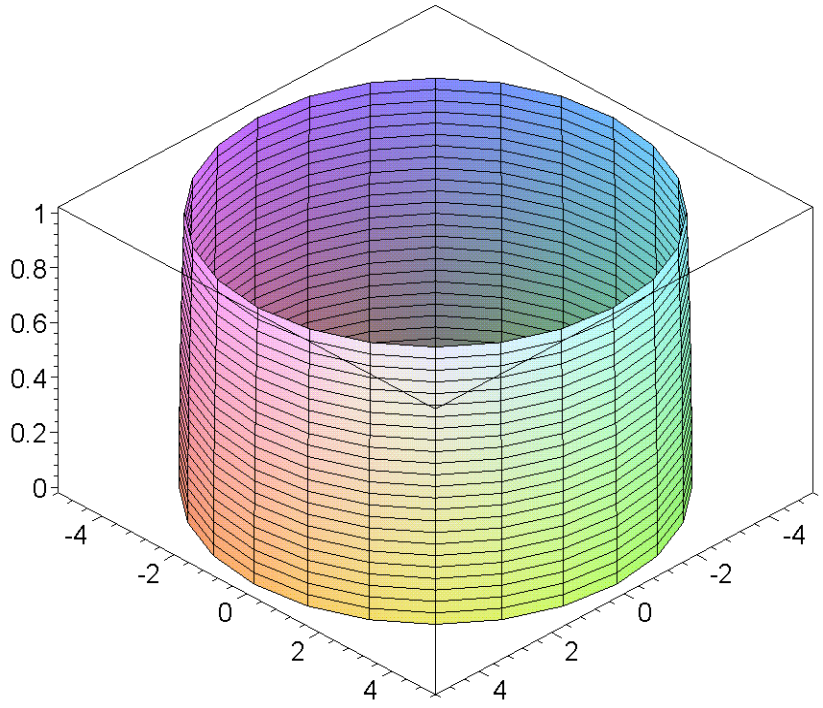
```
> plot3d(2*cos(theta),theta=0..2*Pi,z=-1..1, coords=cylindrical,
  style=patch,axes = boxed);

>
```



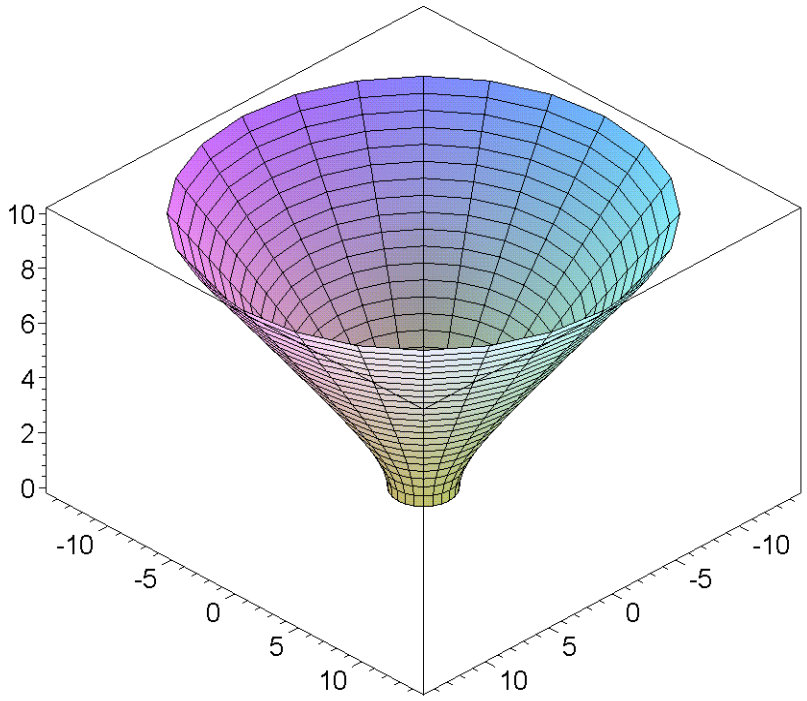

```
> plot3d(2*cos(phi),theta=0..2*Pi,phi=0..Pi,coords=spherical ,
  style=patch,axes = boxed);

>
```



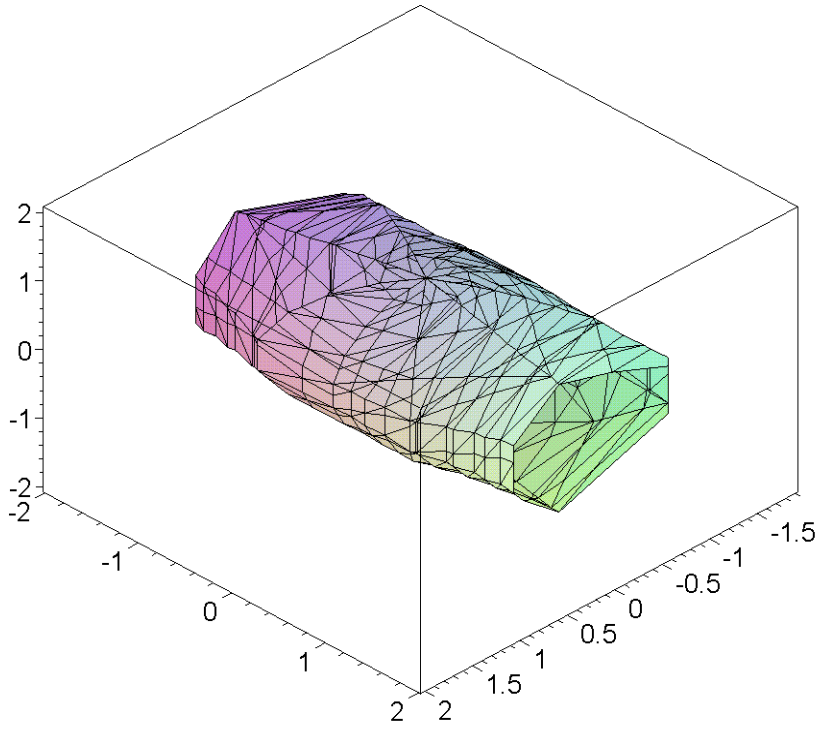

```
> plot3d( sqrt(25-z^2),theta=0..2*Pi,z=0..1, coords=cylindrical,
  style=patch,axes = boxed);
```



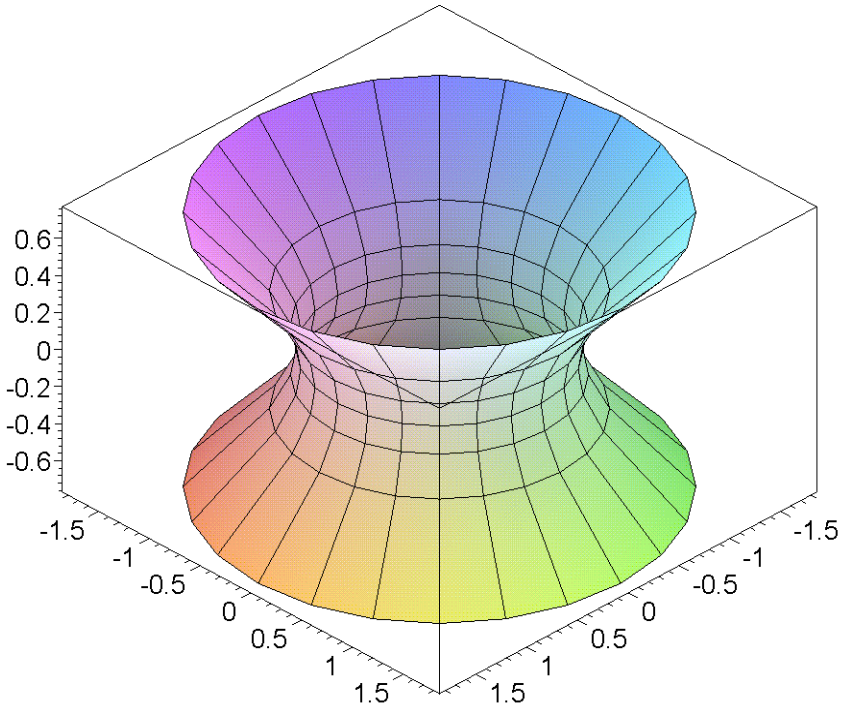
```
> plot3d( sqrt(4 + 2*z^2),theta=0..2*Pi,z=0..10, coords=cylindrical,
  style=patch,axes = boxed);

>
```

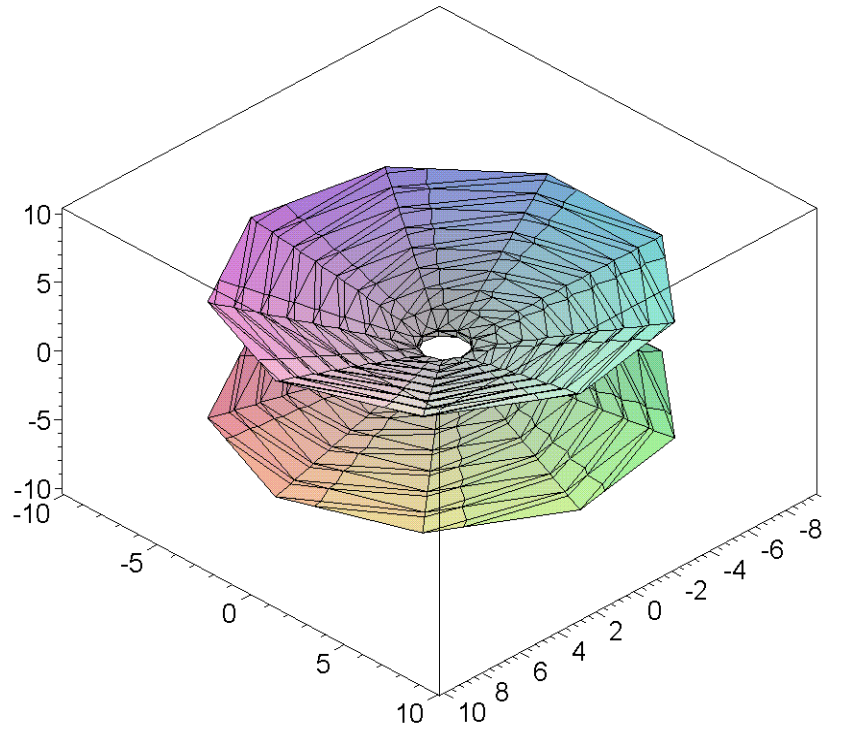



```
> implicitplot3d(rho^2*( (sin(phi))^2*(cos(theta))^2+
  (cos(phi))^2)=1,rho=0..2,theta=0..2*Pi,phi=0..Pi,coords=spherical
  , style=patch,axes = boxed);
```

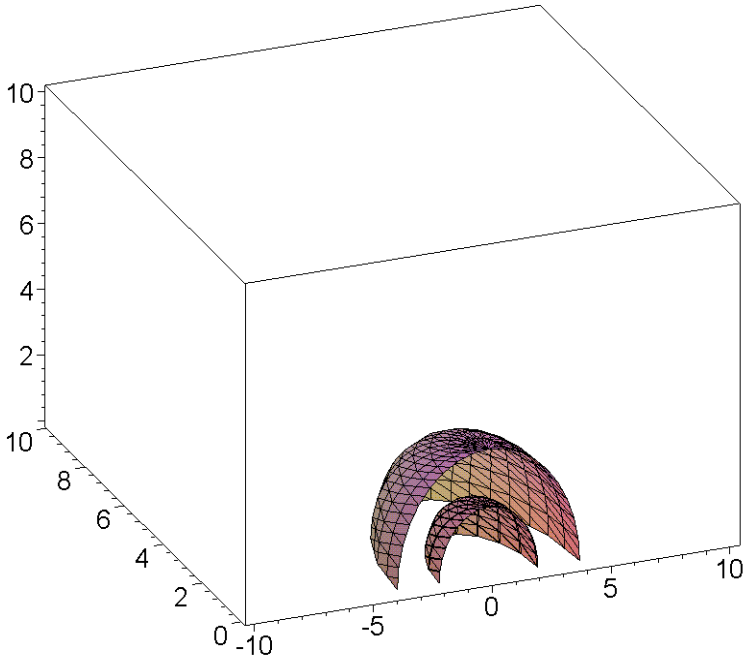



```
> plot3d(sqrt(1/( (sin(phi))^2- 4*
  (cos(phi))^2)),theta=0..2*Pi,phi=0..Pi,coords=spherical ,
  style=patch,axes = boxed);
  implicitplot3d(rho^2*( (sin(phi))^2- 4* (cos(phi))^2)=1, rho = 0
  ..10,theta=0..2*Pi,phi=0..Pi,coords=spherical , style=patch,axes =
  boxed);
```






```
> implicitplot3d(rho^2 -6*rho+8=0,rho=0..10,theta=0..Pi, phi= 0 ..
  Pi/2,coords = spherical, axes=boxed);
>
```



> v

> v