Graphic Maple

restart: with(plots):

eqn := x^2 + y^2 / 4 + z^2 / 2 = 1;

implicitplot3d(eqn , x= −1..1 , y= −2..2 , z= −2..2 , style=patch);

eqn := x^2 + y^2 / 9 − z^2 / 4 = 1;

implicitplot3d(eqn , x= −3..3 , y= −6..6 , z= −5..5 , style=patch);

eqn := −x^2 / 3 − y^2 / 12 + z^2 / 6 = 1;

Try the 1:1 button!

implicitplot3d(eqn , x= −2..2 , y= −4..4 , z= −5..5 , style=patch);

eqn := 4 * z^2 = x^2 + y^2;

implicitplot3d(eqn , x= −2..2 , y= −2..2 , z= −5..5 , style=patch);

cylinderplot(2 * z , theta=0..2*Pi , z=−1..1 , style=patch);

f := x^2 + y^2 / 16;

plot3d(f , x= −2..2 , y= −5..5 , style=patch);

f := −x^2 / 6 + y^2 / 10;

plot3d(f , x= −4..4 , y= −5..5 , style=patch);

eqn := x^2 / 9 + z^2 / 5 = 1;

implicitplot3d(eqn , x= −3..3 , y= −5..5 , z= −3..3 , style=patch);

f := .25 * y^2 ; plot3d(f , x= −3..3 , y= −3..3 , style=patch);

spacecurve([cos(t) , sin(t) , t] , t=0..4*Pi , colour=black);

tubeplot([cos(t) , sin(t) , 0] , t=0..4*Pi , radius=0.25 , style=patch);