In[13]:=
```
dx = dr Sin[θ] + r Cos[θ] dθ;(*x=r cos θ*)
dy = dr Cos[θ] - r Sin[θ] dθ;(*y=r sin θ*)
dz = r/Sqrt[r^2 + R^2] dr;(*x^2+y^2-z^2=-R^2 ==> dz=r/z dr*)
Print["ds^2 = ", FullSimplify[dx^2 + dy^2 - dz^2]]
```

$$ds^2 = d\theta^2\, r^2 + \frac{dr^2\, R^2}{r^2 + R^2}$$