1. Find the surface area of the portion of $z = x^2 + y^2$ between $x = 4 - y^2$ and $x = 1$. Using Maple to evaluate the integral is ok.

2. Find the surface area of the portion of $z = x^2 + y^2$ inside the cylinder $x^2 + y^2 = 16$ by hand.
   Hint: First set up the double integral that gives the surface area, then convert to polar coordinates.