1. Set up the integral that gives the surface area of the portion of $z = x^2 + y^2$ above the region in the xy-plane bounded by $x = 5 - y^2$ and $x = 1$.

2. Find the surface area of the portion of $z = x^2 + y^2$ inside the cylinder $x^2 + y^2 = 16$.

   Hint: First set up the double integral that gives the surface area, then convert to polar coordinates.