

13.3 REVIEW

- Cartesian to Polar: $x = r \cos \theta$, $y = r \sin \theta$, $x^2 + y^2 = r^2$
- Bounded top, bottom:
 - solve for C , the curve of intersection ($\Rightarrow z_{\text{top}} = z_{\text{bottom}} \Rightarrow r = C$)
 - lay out integral from 0 to 2π of $\int_0^C [\text{top} - \text{bottom}] r dr d\theta$
 - Solve
- Solving / Differences between "standard" Cartesian Double Integrals
 - $dx dy$ or $dy dx \rightarrow r dr d\theta$ where the r is a multiple.
- Annular Region: integral on the range of the function.

