## Class Exercise 3

1. Let $D$ be the region bounded between $y=6-x^{2}, y=2$, and $y=0$. Express the double integral of some $f$ over $D$ in $d x d y$ and in polar coordinates.
2. Find the area of one leaf of $r=12 \cos 3 \theta$. Can you express this curve in cartesian coordinates?
