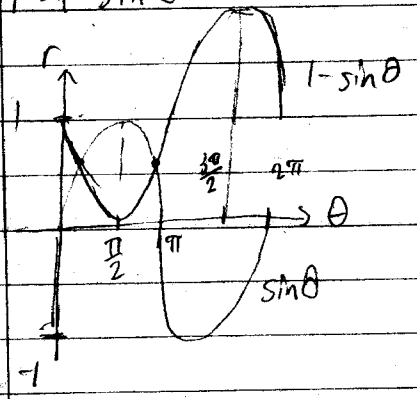
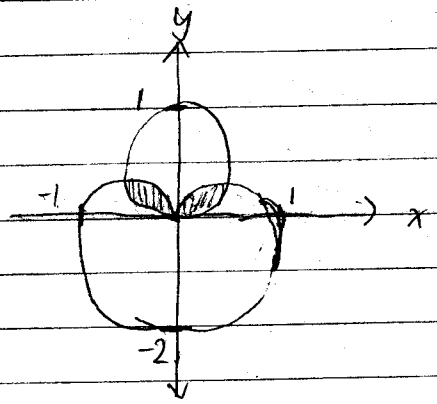
HW10 Q2

$r = 1 - \sin\theta$ $r = \sin\theta$





$$2\int_{\frac{\pi}{6}}^{\frac{\pi}{2}}\int_{1-\sin\theta}^{\sin\theta} 1 \cdot r \, dr \, d\theta$$

$1 - \sin\theta = \sin\theta$

$\sin\theta = \frac{1}{2}$

$\theta = \frac{\pi}{6}$