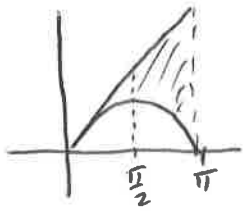
6.1 HW Setups

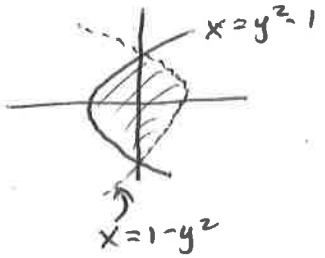
#2) $\int_0^2 \left(\sqrt{x+2} - \frac{1}{x+1}\right) dx$

#4) $\int_0^3 \left((2y - y^2) - (y^2 - 4y)\right) dy$

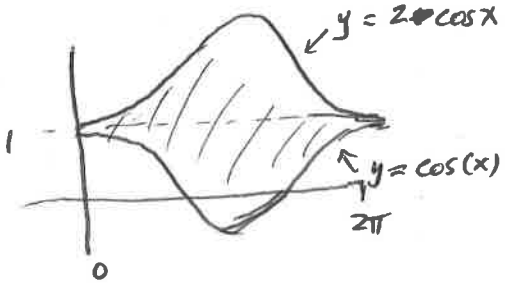
#6)



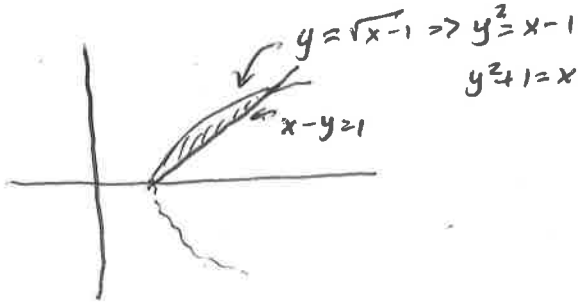
#11)



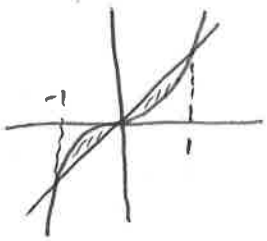
#16



#18



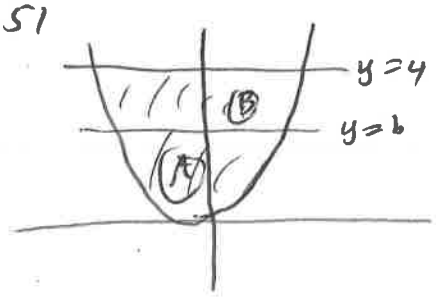
#22



(Don't forget the negative side!)

#46 The area between curves is $\int_0^{10} |b(t) - d(t)|\, dt$, so this is the increase in the population over 10 years (≈ 8868)

#51



Find b so that (A) = (B) = $\frac{1}{2}$ total area.
Several ways to set this up. Using symmetry,

$$\int_0^b \sqrt{y}\, dy = \int_b^4 \sqrt{y}\, dy$$