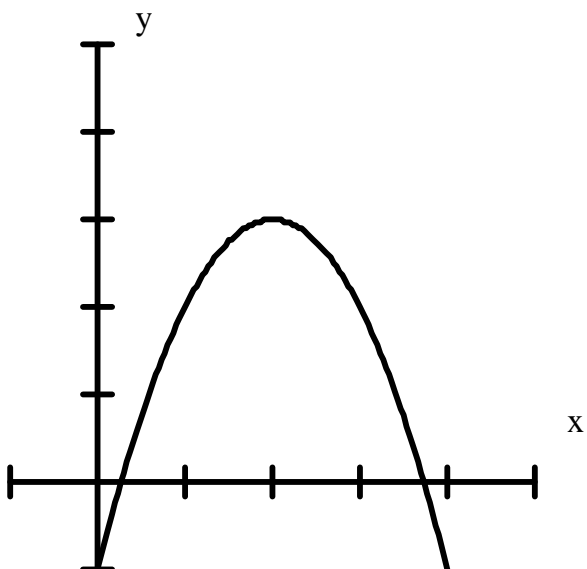
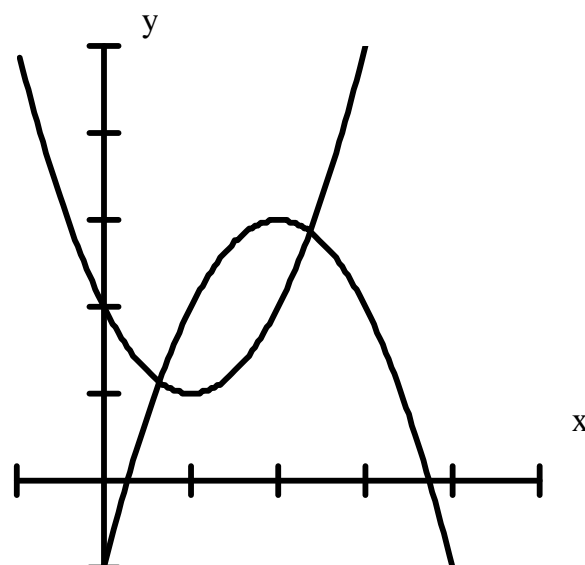


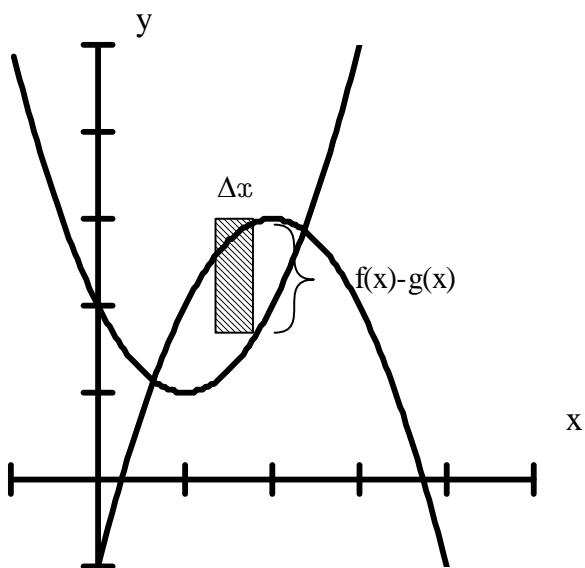
1) Draw $f(x)$



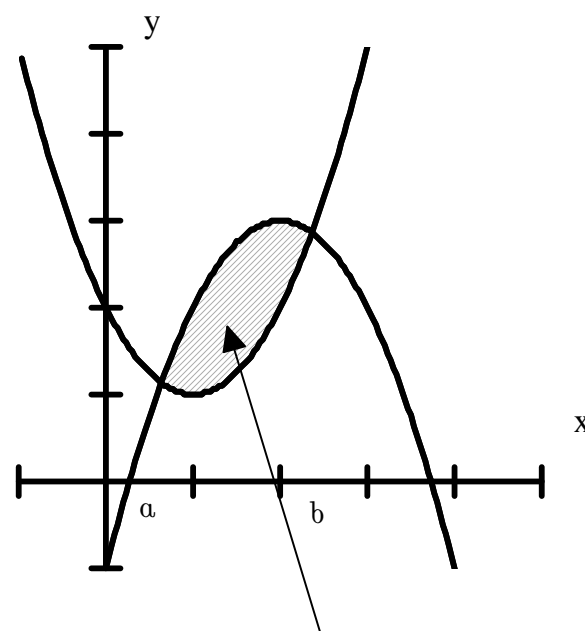
2) Draw $g(x)$



2) Draw a rectangle between the curves.
 The height of this rectangle is $f(x)-g(x)$
 and the width is Δx . So its area is
 $(f(x)-g(x))\Delta x$



4) Now add up infinitely many such
 rectangles as Δx becomes very small
 and you get the integral and area
 shown.



a and b are the limits of integration.
 Many times these are found from
 solving $f(x)=g(x)$

$$\text{Area} = \int_a^b f(x) - g(x) dx$$