Areas Between Curves

1. For the following, sketch the region enclosed by the given curves, and compute the enclosed area:

   a. $f(x) = 2x + 3, g(x) = 4 - x^2, x = -2, x = 0$

   b. $y = x^2 - 4x, y = -2x + 3$

2. Find a number b so that the line $y = b$ divides the region bounded by the parabola $y = x^2$ and line $y = 6$ into two regions with equal area.