Areas and Volumes

Find the areas for the regions bounded by the two curves below

1. y = x2- 2 and y = 2
2. y = x2 and y = 4x – x2
3. x = y2 and the line x = y + 2
4. x = y3 – y and x = 0 and y = 0

Find the volumes of the solids formed

1. When is revolved around the x-axis
2. When the region bounded by y = secx and the x-axis from x = -π/4 to x = π/4 is revolved around the x-axis
3. When the area bound by y2 = 1 – x and the y-axis is revolved around the y-axis
4. When the region bounded by y = x3, x = 2 and the x-axis is revolved around the line x = 2
5. When the region bounded by y = 16 – 4x and y = 16 – x2 is revolved around the x-axis
6. When the same two graphs as in # 9 are rotated about the line x = 8