Sketch each solid described and find its volume

1. The base is bounded by the graphs $y = x^2 + 1$ and the x-axis for $-2 \leq x \leq 2$, and where cross-sections perpendicular to the x-axis are squares

2. The region bounded by $y = 4 - 2x$ in the first quadrant is rotated about the x-axis

3. The region bounded by $y = \dfrac{1}{\sqrt{1 + x^2}}$, the x-axis, $x = -1$ and $x = \dfrac{1}{\sqrt{3}}$ is rotated about the x-axis

4. The region from #2 is rotated about the line $y = -3$

5. The solid formed when the region bounded by $y = x^2 + 1$ and $y = x + 3$ is rotated about the x-axis

6. The volume when the region from #5 is rotated about the line $y = 12$