(1) Find the points \((r, \theta)\) on the curve \(r = 1 + \cos \theta\) where the tangent line is vertical.

(2) Find the area inside the both curves \(r = 3 + 2\sin \theta\) and \(r = 2\).

(3) Sketch the graph of the curve \(r = 1 - 3\cos \theta\).